Transportation Performance Management Webinar Series

Safety Target Setting

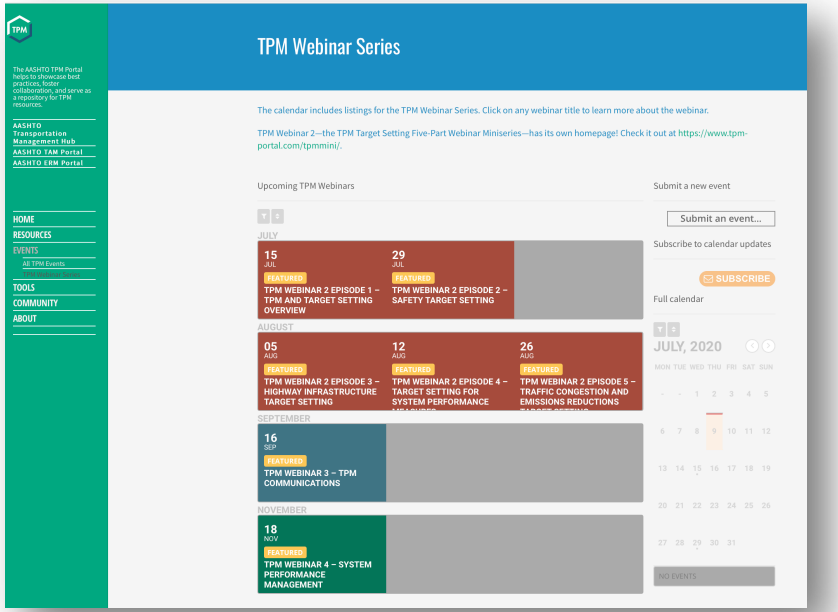
Sponsored by the TPM Pooled Fund
with Support from AASHTO CPBM Leadership and FHWA

July 29, 2020

TPM Target Setting Miniseries Webinar 2

Transportation Performance Management Webinar Series

- Our regular webinar series is held every two months, on topics such as communications, system performance management, data sources, and many more to come!
- Today is Episode 2 of a special, five-part Target Setting Webinar Miniseries that will run through August
- We welcome ideas for future webinar topics and presentations
- Use the webinar Q&A panel during the webinar
  - Submit questions for today's presenters
  - Submit ideas for future webinar topics



Welcome

The TPM Pooled Fund, the AASHTO Committee on Performance Based Management, and FHWA are pleased to sponsor this webinar series!

- Sharing knowledge is a critical component of advancing performance management practice

Webinar Agenda

2:00 **Welcome and Introduction and TPM Pooled Fund Overview**
Christos Xenophontos (Rhode Island DOT) and Hyun-A Park (Spy Pond Partners, LLC)

2:10 **Safety Target Setting Overview**
Dave Kopacz (FHWA)

2:20 **Virginia's Data-Driven Targets Support Safety Strategies**
Stephen Read (Virginia DOT)

2:35 **Safety Performance Target Setting OR, What's the Right Amount to Invest in Safety Improvements?**
Beth Alden (Hillsborough MPO, Florida)

2:50 **Safety Target Setting in Louisiana**
Jessica Deville (Louisiana DOTD)

3:05 **California Safety Target Setting**
Saurabh Jayant (California DOT) and Mike Colety (Kimley-Horn)

3:20 **Q&A and Wrap Up**

VIRGINIA'S DATA-DRIVEN TARGETS SUPPORTS SAFETY STRATEGIES

FHWA TPM SAFETY TARGET SETTING WEBINAR

STEPHEN READ, P.E. *HIGHWAY SAFETY PLANNING MANAGER*
JULY 29, 2020

Background

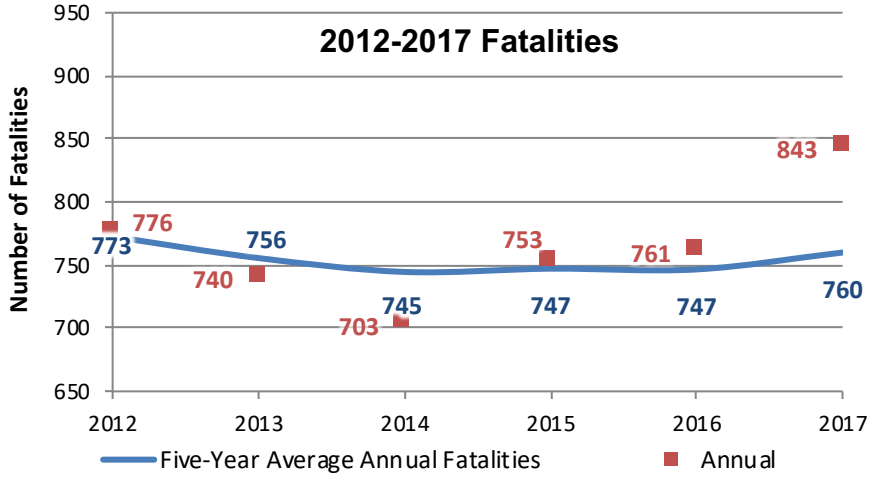
- 3rd Largest DOT with 71k miles (11.8k Urban)
- 9 construction districts
- 15 MPOs, 24 PDCs, 95 Counties, 36 Independent Cities
- 8.5 million people
- Commonwealth Transportation Board
  - By code establishes performance measures and adopts targets pursuant to federal requirements as well as measures/targets established for long range planning purposes

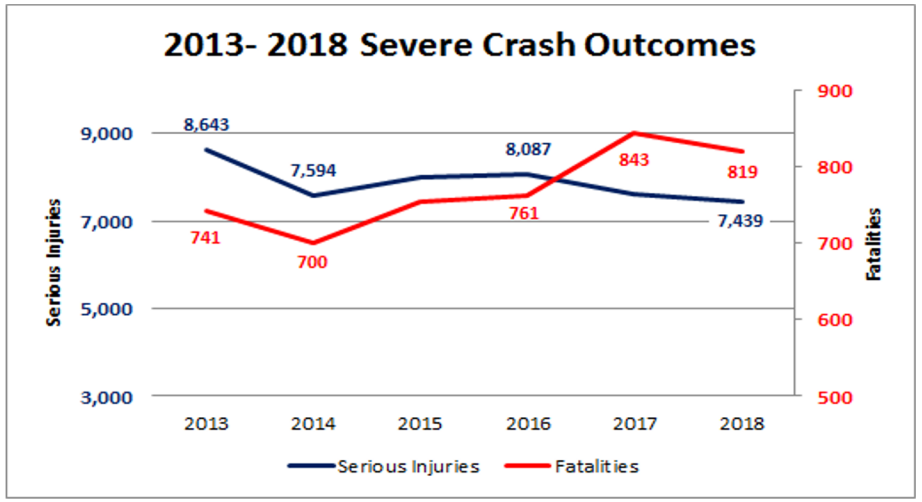
Office of INTERMODAL Planning and Investment

- Responsible for the long-range transportation plan, VTrans; project prioritization process, SMART SCALE; and performance management.
- Evaluate and monitor performance to inform investment and policy decisions
- Works with VDOT and DRPT, and other agencies under the transportation secretariat

Safety Performance Management Measures and Targets

- Board challenged staff to develop a new rigorous data-driven methodology to establish targets:
  - Understand how the system is working
  - Identify and examine trends
  - Determine the impact of current investments and strategies
  - Provide targets to Board





Safety Performance Management
Refining Target Setting

Five steps to develop new target setting methods:

1. Determine crash factors and causes – behavioral, infrastructure and the interaction
2. Determine degree of infrastructure improvements influence on behavioral crashes
3. Evaluate anticipated benefits of recent infrastructure projects
4. Analyze external factors to predict 2020 baseline severe crash safety measure counts
5. Combine the baseline predictions with project benefits to establish data-driven targets

Step 1 - Crash Factors and Causes
Refining Interaction of Behaviors

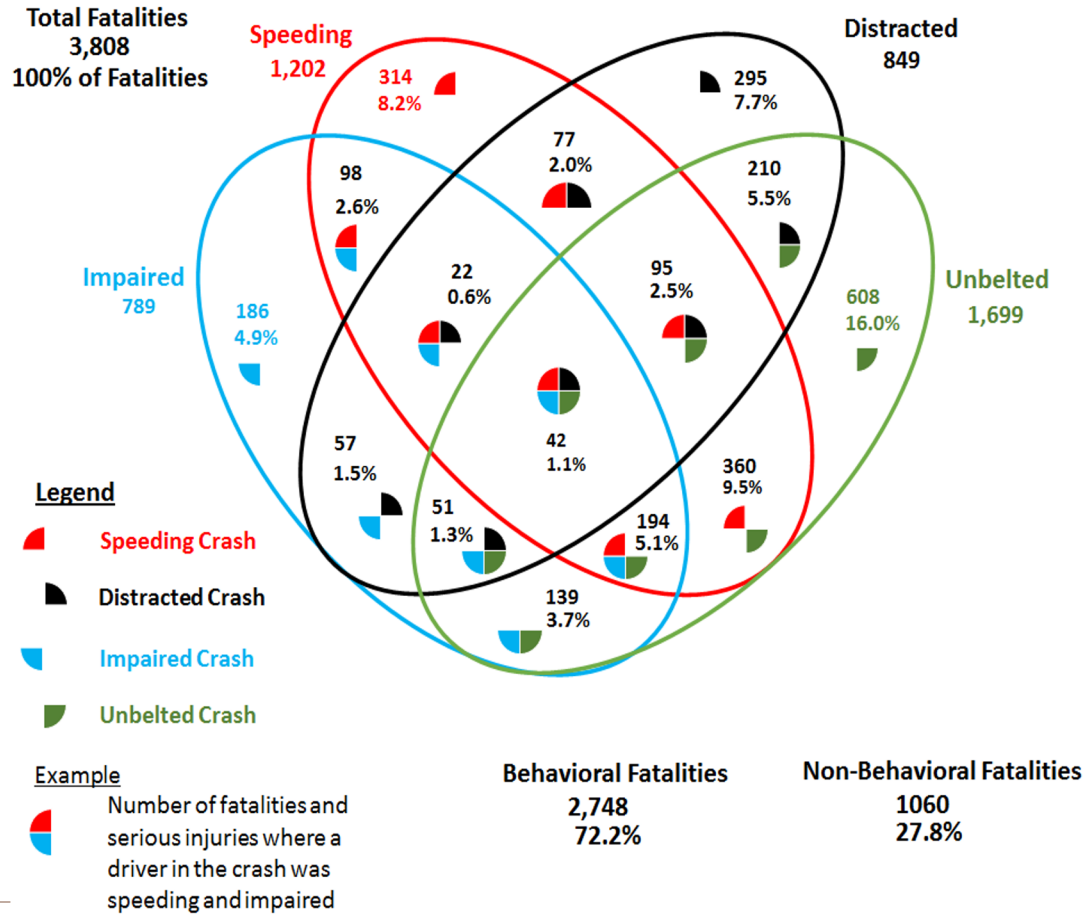
- Critical behaviors to address:
  - Alcohol Impairment
  - Distracted
  - Speeding
  - Unbelted Occupants

- Refined definitions for Impairment, Distraction and Speeding due to variance in these behaviors

Results - Crash Causes and Factors
Refined Interaction Injury Crashes

Applied New Definitions Further Refining Interaction Between Behaviors

	Fatalities		Serious Injuries	
Behavioral	2,748	72%	21,350	53%
Non-Behavioral	1,060	28%	18,650	47%



Defining Targeted Behaviors: Speeding

- Speeding Crash Infrastructure Effects:
  - Delta Speed < 10 MPH = Full Effect (x 1.0)
  - 10 <= Delta Speed < 14 MPH = High Effect (x 0.75)
  - 14 <= Delta Speed < 16 MPH = Medium Effect (x 0.50)
  - 16 <= Delta Speed < 20 MPH = Low Effect (x 0.25)
  - 20 <= Delta Speed = No Effect (x 0.0)

- Based (roughly) on Nilsson speed power function and Elvik's exponential function

https://etsc.eu/wp-content/uploads/The-mathematical-relation-between-collision-risk-and-speed.pdf

Safety Performance Management
Refining Target Setting - 2021 Targets

Steps 1 and 2 not repeated for 2021 target setting

3. Evaluate anticipated benefits of recent (or soon to be completed) infrastructure projects
4. Analyze external factors to predict 2020 baseline safety measure counts for validation
    - assess new factors
    - update and refine model for 2021 predictions
5. Combine the 2021 baseline predictions with project benefits to establish data-driven targets

Step 3: Expected Annual Reductions

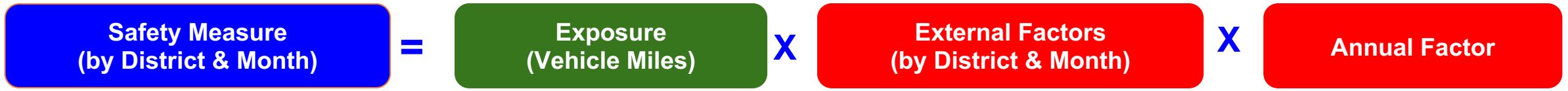
Based on project element CMFs, adjusted for behaviors, applied to Fatality (F) and Serious Injury (SI) crashes

Description	F People	SI People	F + SI Ped/Bike People
Spot/Corridor Reduction	1.0 / Yr	11.2 / Yr	1.3 / Yr
Spot Cost / Annual Reduction	$415.5 M	$37.1 M	$193.1 M
Hybrid Reduction	1.5 / Yr	7.8 / Yr	0.6 / Yr
Hybrid Cost / Annual Reduction	$24.4 M	$4.7 M	$20.8 M
Systemic Reduction	1.1 / Yr	15 / Yr	7.5 / Yr
Systemic Cost / Annual Reduction	$19.8 M	$1.5 M	$1.85 M
Total Expected Reductions	**3.6 / Yr**	**33.9 / Yr**	**9.4 / Yr**

Step 4: Analyze External Factors to Predict 2021 Baseline

Refining the predictive baseline models includes three steps:

1. Assess past and new external factors with time factors to calibrate the models
2. Validate the model external and annual calibration factors with 2019 data
3. Forecast external and annual calibration factors for future measure predictions



Step 4: Analyze External Factors to Predict 2021 Baseline

Assessed models for Fatalities and Serious Injuries using the following external factors:

Social Economic Data

- Annual Total Population by Age
- Annual Labor Force
- Monthly Unemployed
- Median Household Income
- Statewide Annual GDP
- Liquor Licenses by Type
- ABC Stores – Gallons Sold
- Average Gas Price
- Percent Drive Alone
- Percent Uninsured

Veh. Miles Travelled

- Urban and Rural VMT
- Monthly VMT

Transportation Spending

- VDOT Infrastructure Programs
- DMV HSO Behavioral Spending

Weather

- Average Precipitation
- Average Snowfall

Annual Calibration Factor Trends

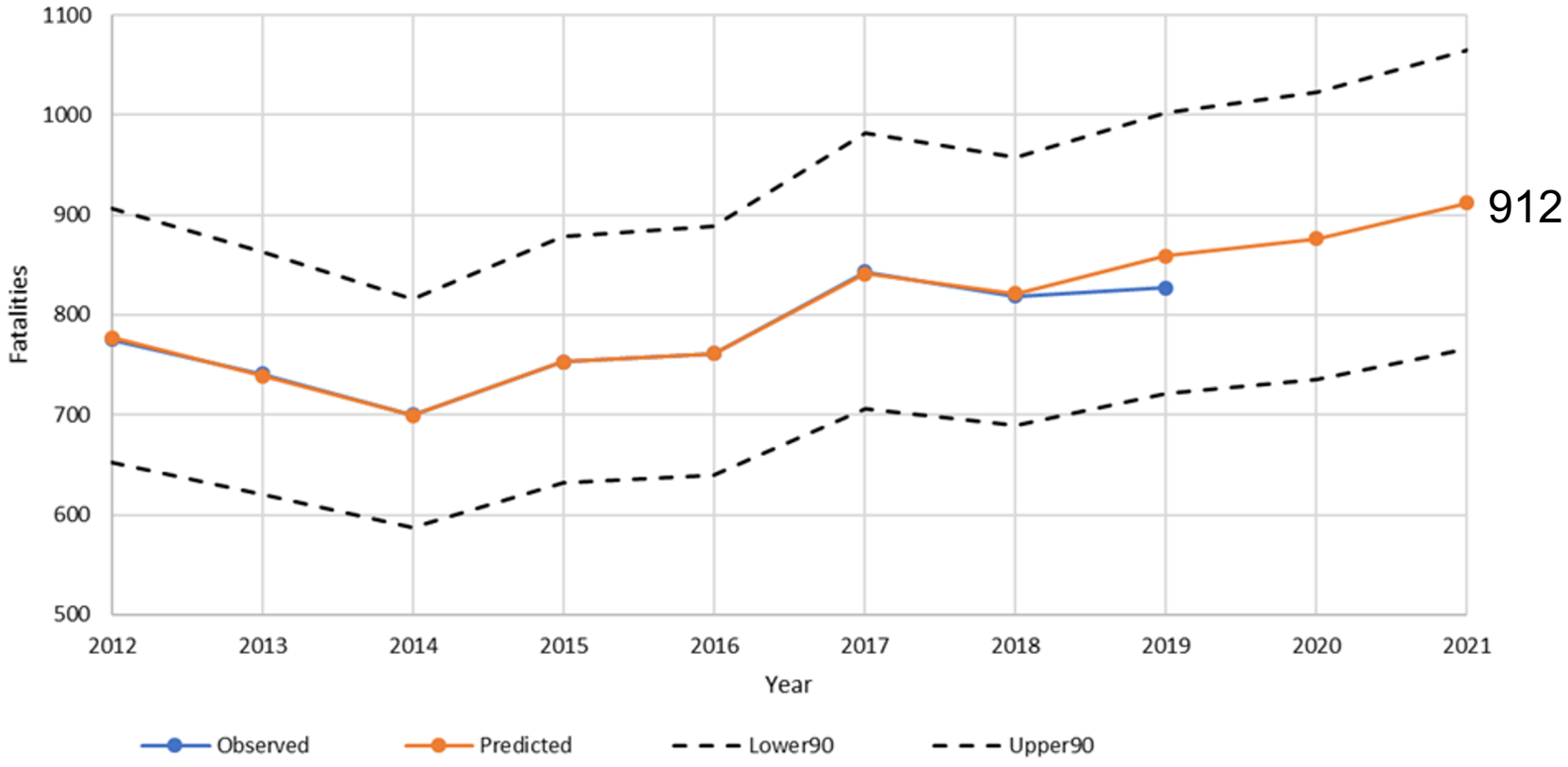
Factor data compiled by VDOT District and, when available, by month.

Step 4 - Findings From the 2020 Prediction Models and 2021 Additions

External Factor	Effect on Fatal Crashes	Effect on Serious Injury crashes	Effect on Bike/Ped crashes
VMT growth	↑	↑	↑
Increasing local functional class % of VMT	↑	↑	↑
Increasing young population (15-24)	↑	⇧	↑
Increasing aging population (75+)	↑	↑	
Gallons Liquor Sold		⇧	
Liquor licenses			↑
Increased highway resurfacing spending	↓		
Increased emergency/incident management spending	↓		
Increased total behavioral programs spending	↓	⇩	
Increased roadway maintenance spending		↓	
Increased average snowfall per month		⇩	↓
Increased rural functional class % of VMT			↓
Increased non-motorized behavioral program spending			↓
Increased gas prices			↓

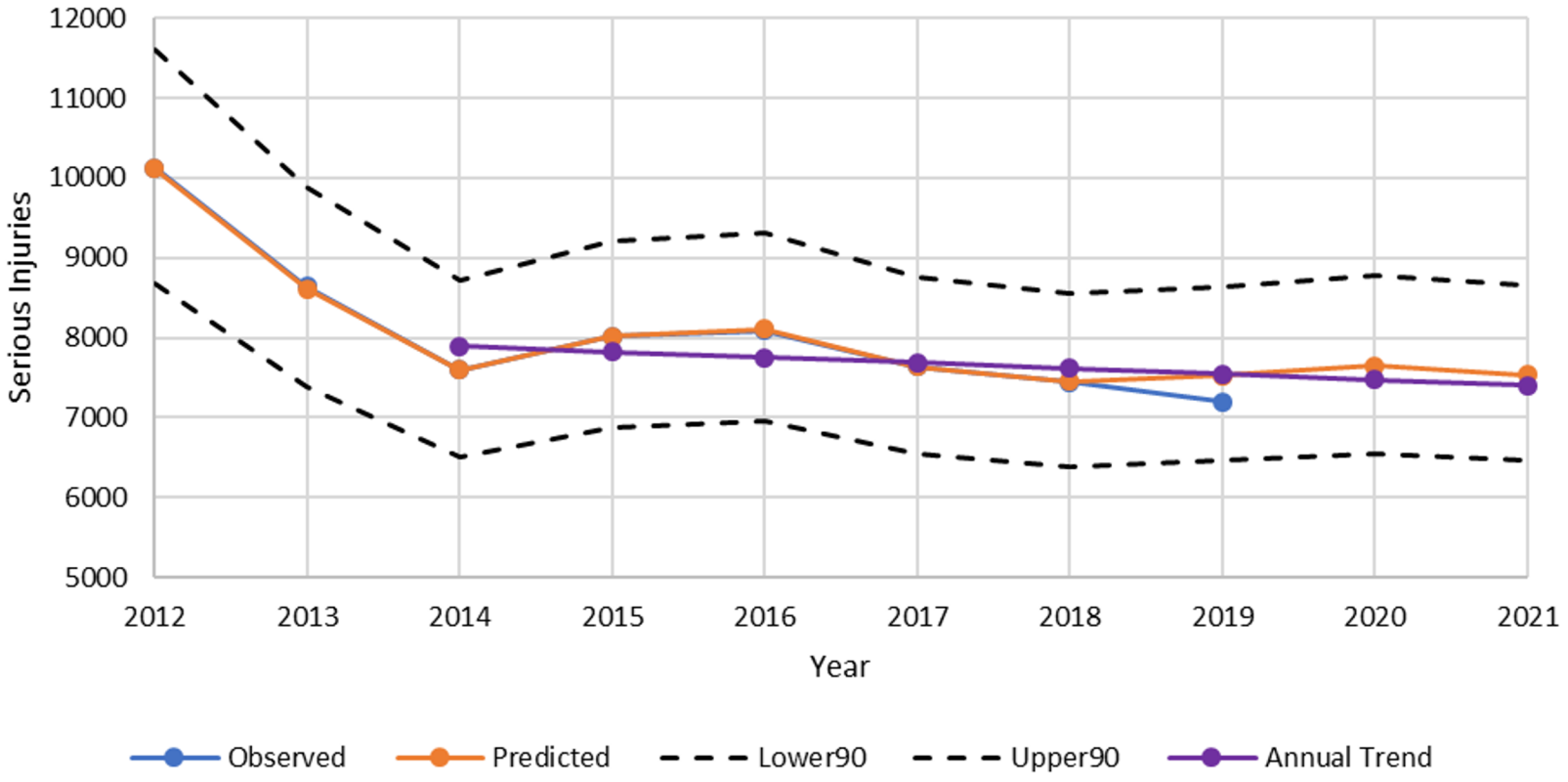
⇧ = Additional factor in 2021 safety performance model

Predicted and Observed Fatalities: Previous trends continue in 2020-2021



Note: Based on recent years, assumed flattening annual factor trend (but still increasing). 2019 was key indicator of changes continuing.

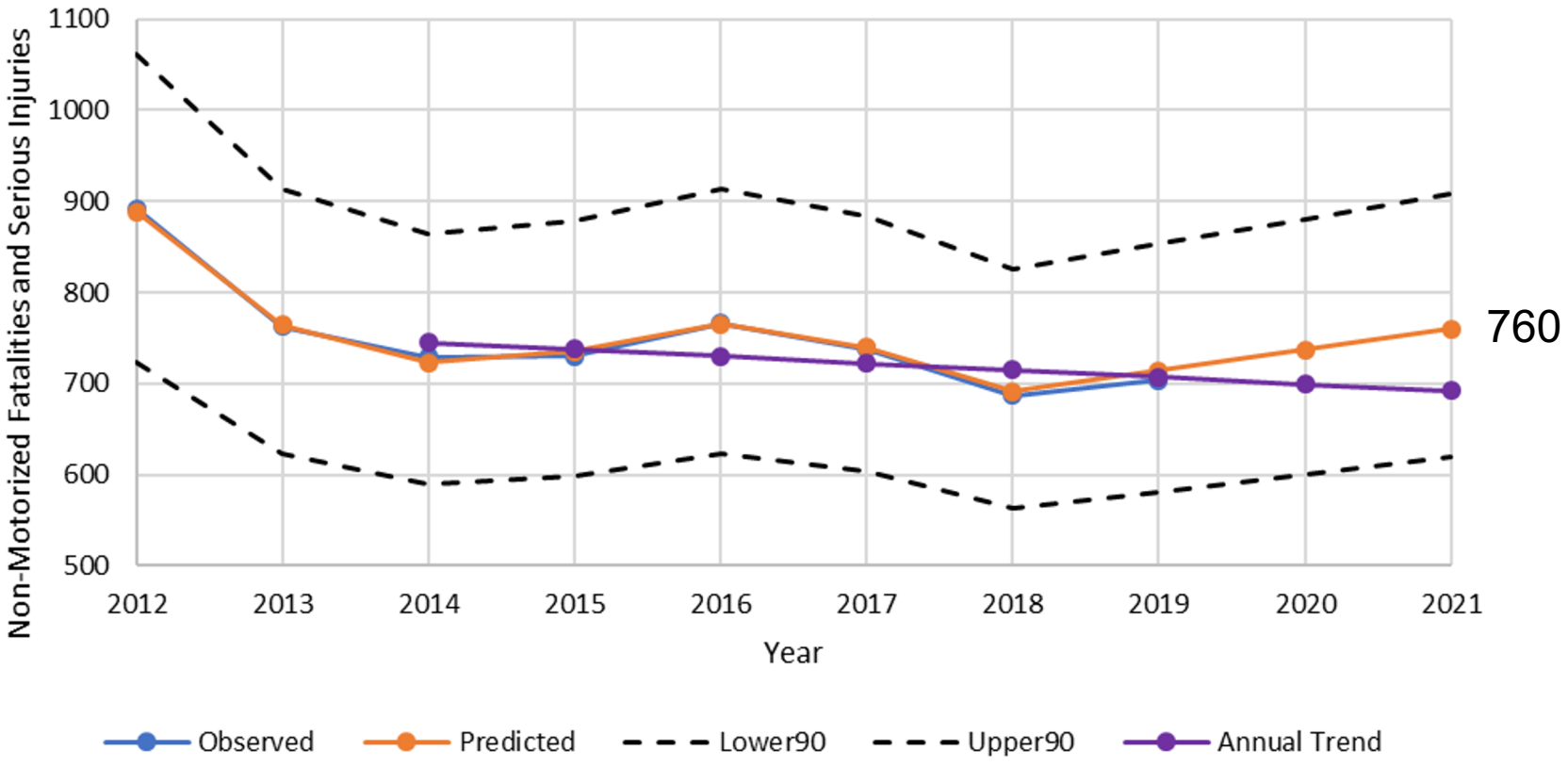
Predicted and Observed Serious Injuries – Previous trends continue in 2020-2021



7,533

Note: Annual trend factors continue to stay flat, so predictions are generally consistent with trend-line.

Predicted and Observed Non-Motorized F and SI
Previous trends continue in 2020-2021



Note: Annual trend factors continue to stay flat, however prediction still grows due to other external factors.

Step 5: Proposed 2021 Safety Measures Targets With Previous Trends in Baseline Predictions

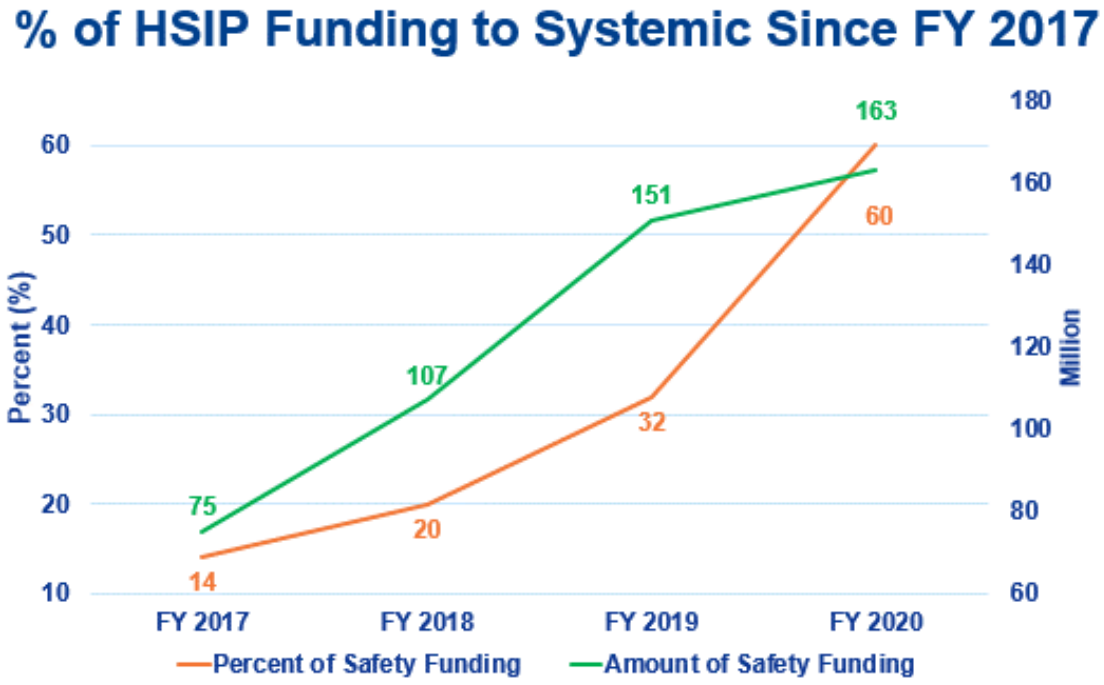
Description	F People	F Rate	SI People	SI Rate	F & SI Ped/Bike People
STEP 4: 2021 Target Baseline	912		7,533		760
STEP 3: Expected Project Annual Reductions	4	---	34	---	10
New: Expected Reductions Handheld Ban	**10**		**114**		**
STEP 5: Proposed 2021 Targets	**898**	**1.012**	**7,385**	**8.325**	**750**
CTB 2020 Approved Targets	950	1.08	7,473	8.52	711

** Some of the Fatal and Severe Injuries reduced by the handheld ban will impact the Bike/Ped outcomes, but we do not have a method to estimate the proportion.

Safety Performance Management Policy Development

Why is a new policy for HSIP needed?

- Model development and target-setting exercise highlighted that systemic and hybrid safety improvements provide significant benefits in reducing fatalities and serious injuries - especially on a cost per annual reduction basis.
- While investments in systemic and hybrid safety projects have been increasing, desire to prioritize over spot improvements to drive severe crash numbers down.



Safety Performance Management
Key Policy Elements

- Developed Implementation Plan for prioritized systemic and hybrid safety improvements and established goals and schedules for completion for each improvement type:
  - Edge- and Center- Line rumble strips on primary system
  - Safety edge
  - Left Turn Flashing Yellow Arrows
  - Curve Chevrons
  - High-visibility signal backplates
  - Pedestrian crossings signs / markings
  - Unsignalized intersections signs / markings
- Include approach for prioritization and selection of spot improvement projects
- Include funding distribution approach/formula
- Include annual reporting requirements to provide progress updates and possible course corrections

Policy and Investment Impact
Estimated Lives and Injuries Saved Per Year After Full Deployment

Systemic Safety Improvement	Benefit/Cost Ratio	Lives and Injuries Saved Per Year Once Fully Deployed		
		Deaths	Injuries	Total
High-Visibility Backplates (VDOT)	9.0	1	106	107
Flashing Yellow Arrows (VDOT)	12.6	1	90	91
Curve Delineation (VDOT)	1.7	6	104	110
Pedestrian Crossings (VDOT)	8.9	3	85	88
Unsignalized Intersection (VDOT)	1.3	2	62	64
Shoulder Wedge (VDOT)	17.0	13	281	294
CL Rumbles - Primaries (VDOT)	40.0	13	115	128
Edge Rumbles - Primaries (VDOT)	29.8	22	331	353
	Total	**61**	**1174**	**1235**

Total Investment of $116.7 million from FY2020 – FY2025

Current Status and Next Steps

- **September 2019 - Board adopted amendments to SYIP to begin initial Implementation Plan**
- **December 2019 - Board adoption of Policy**
- **2020 General Assembly Session**
  - **New Virginia Highway Safety Improvement Program and additional state revenue for transportation**
    - Establishes funding formula for distribution of safety funding
    - Establishes requirements for CTB to adopt investment strategies
    - Establishes additional revenue for safety programs
- **Refining essential eight countermeasure implementation with additional state funds**

Questions?

stephen.read@vdot.virginia.gov

Virginia Department of Transportation

Highway Safety Planning Manager

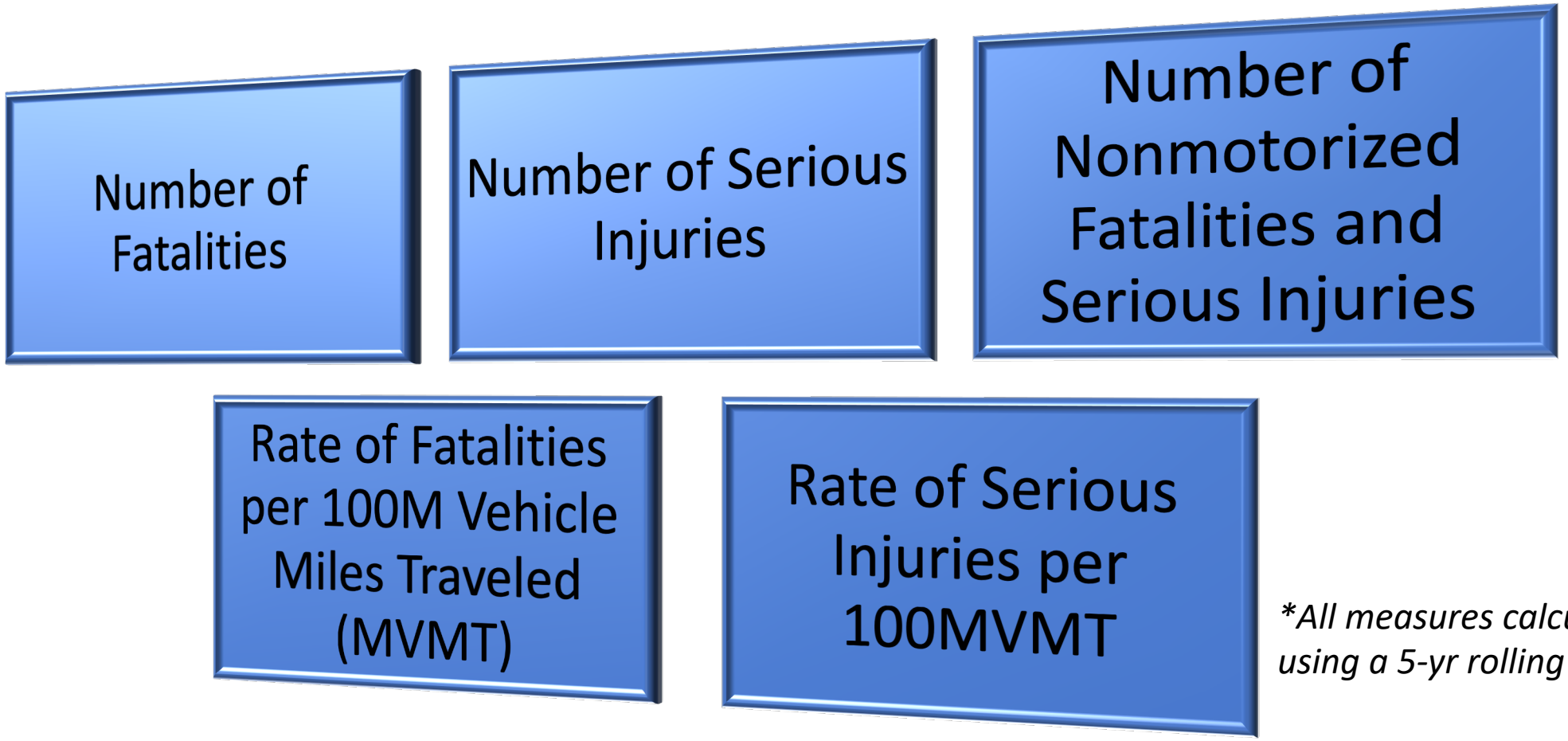
Safety Performance Target Setting

Or, what's the right amount to invest in safety improvements?

Hillsborough MPO
Metropolitan Planning for Transportation

July 2020

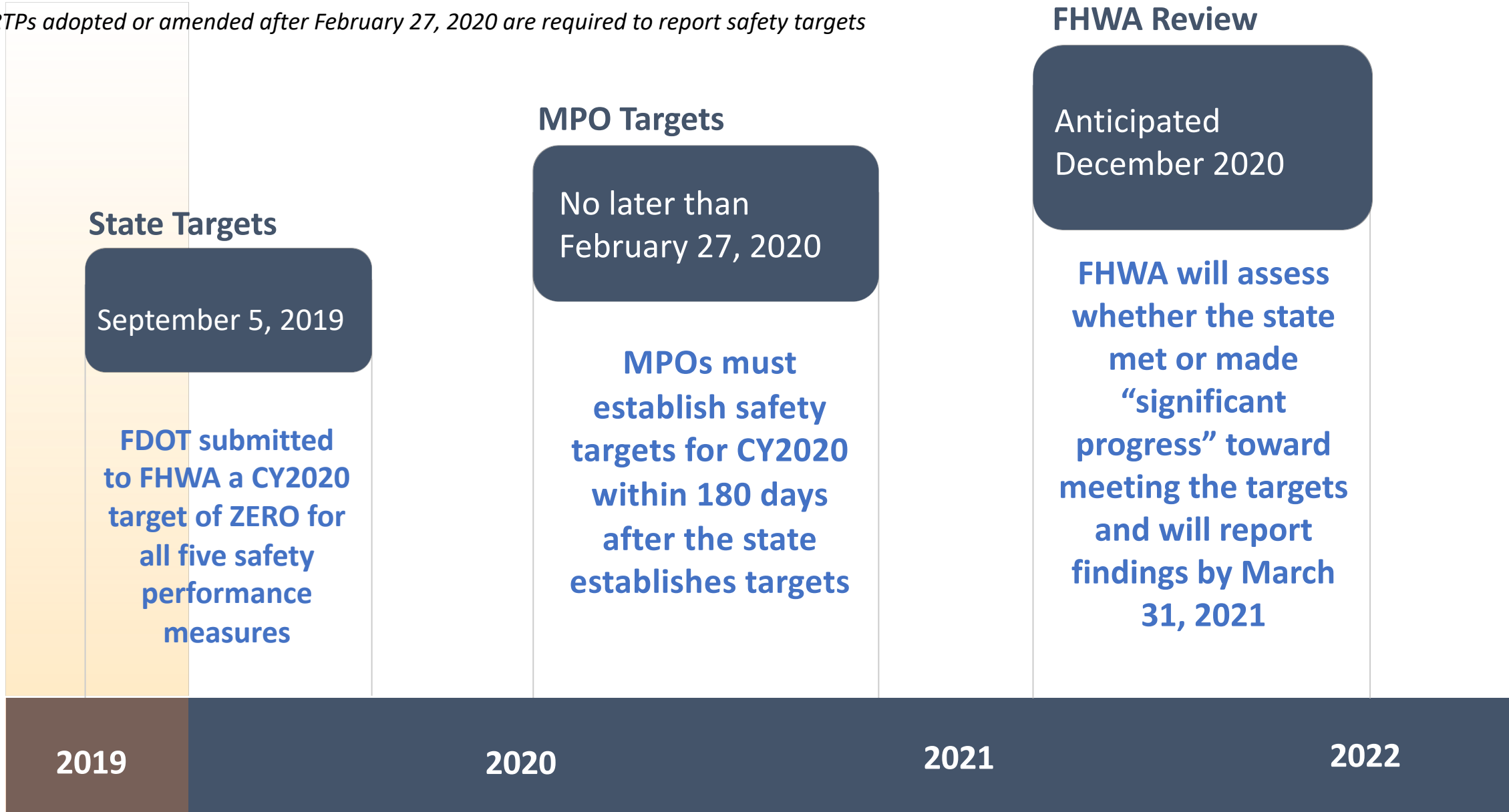
Performance Management Measures for the Highway Safety Improvement Program (HSIP)



**All measures calculated using a 5-yr rolling average*

Process and Schedule for Safety Target-setting

**TIPs and LRTPs adopted or amended after February 27, 2020 are required to report safety targets*



Hillsborough MPO
Metropolitan Planning for Transportation

February 2020 Report Card

Performance Measure	2019 Target	2019 Actual	Met Target?
Fatalities	163	211	NO
Fatalities (5yr)	188	200	NO
Serious Injuries (5yr)	1,354	1,304	YES
Nonmotorized Fatalities & Injuries (5yr)	229	223	YES
Fatalities per VMT (5yr)	1.33	1.42	NO
Serious Injuries per VMT (5yr)	9.55	9.27	YES

Scale of safety prob in HC

Long Range Transportation Plan = Many Kinds of Investments …..

Preserve the System

Reduce Crashes & Vulnerability

Minimize Traffic for Drivers & Shippers

Real Choices for Non-Drivers

Grow Economic Activity Centers

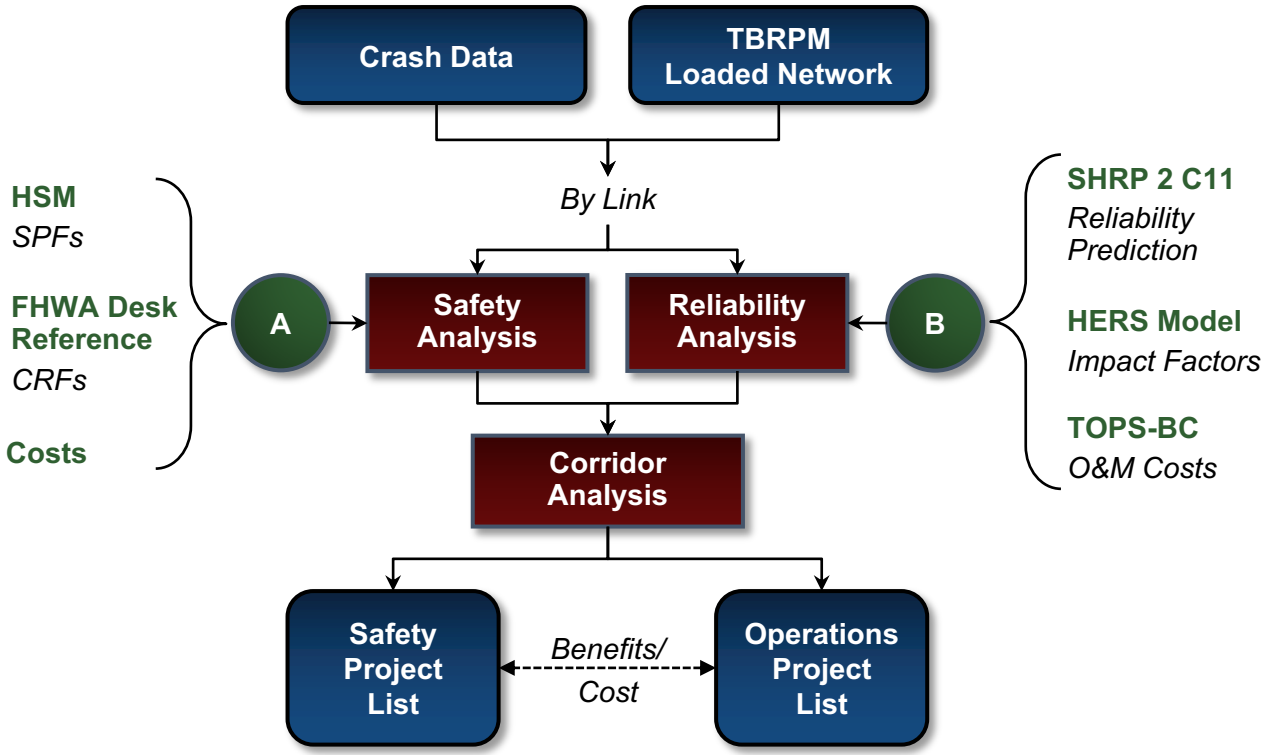
How can performance measures help us target limited resources?

What can we get if we invest more broadly in Reducing Crashes & Vulnerability?

EXAMPLE

Level 1 – CURRENT SPENDING LEVEL CONTINUES, 20 YEARS	• Fatality rate continues to be above national average • 10-years to recover from direct hurricane hit
Level 2 – SAFETY SPENDING DOUBLES	• Fatality rate equal to the national average by 2040 • Reduced recovery time from direct hurricane hit
Level 3 – SAFETY SPENDING TRIPLES	• Fatality rate % below the national average by 2040 • Greatly reduced recovery time from direct hurricane hit

Where did that crash forecast come from?



- A travel demand model post-processing tool, which builds on our 2045 congestion forecast
- Tool was developed with a SHRP2 grant & other support from FHWA and FDOT, and is partly integrated in PlanWorks
- Assumes crash reduction features are added on the worst segments on the network, and estimates the benefit
- How many segments? You choose, based on your investment scenario

A “bundle” of Complete Streets treatments

- Fletcher Ave near USF as an example
- 3.02 mile segment
- Median islands, lighting, lane narrowing, RRFBs, bike lanes, high-visibility crosswalks
- Typical cost per mile
- Available funding in Hillsborough MPO’s cost-feasible plan = 7 projects like this per year (or, 420 miles over 20 years)

Tool interface & outputs

Safety and Reliability TDM Model — FDOT user

Bundles

10 records per page

Name	Category	Improvement Type(s)	N Types
Operations Bundle - Complete Streets	Operations	Complete Streets	1
Operations Bundle 1	Operations	Dynamic message signs; Hard Shoulder Running; Incident Management (FSP, ...	5
Operations bundle demo	Operations	Integrated Corridor Management; Signal Coordination; and Real-Time Adapt...	3
Safety Bundle - Complete Streets	Safety	Complete Streets	1
Safety Bundle 1	Safety	Delineation; and Bike lanes	2
Safety Bundle 2	Safety	Delineation; Bike lanes; and Ramp Metering	3

← Previous 1 Next →

Corridor	Functional Class	Length	VMT	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Ped/Bike Crashes	Improved?	Total Cost
I-4 (Hillsborough Co): FROM I-275 TO I-75	Freeway	8.043	696,195.0	258	1	75	181	27	false	$0
I-4 (Hillsborough Co): FROM I-75 TO Hillsborough / Polk County Line	Freeway	18.052	1,440,800.0	503	3	146	353	53	false	$0

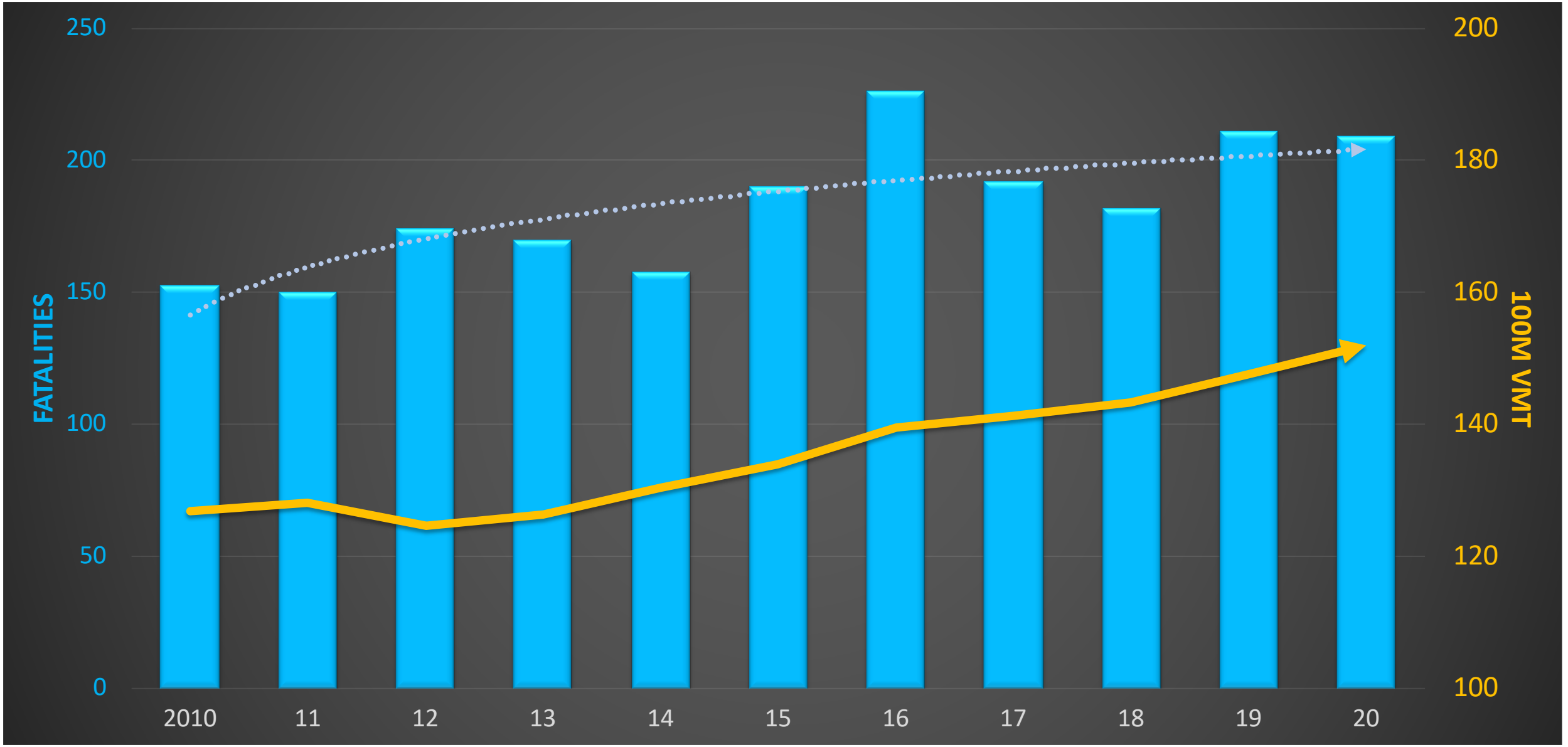
Showing 1 to 2 of 2 entries

← Previous 1 Next →

Summary by Functional Class

Functional Class	Length	VMT	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Ped/Bike Crashes	Improved?	Total Cost
Freeway	26.095	2,136,997.031	761	4	221	534	80	false	$0

Relationship between VMT growth & fatalities



Long-Range Forecasts of Future Performance

Financial Scenario 1: Status Quo (without additional funding) outcomes in 2040

Preserve the System

Level 1 Roads repaved every 50 years on average countywide

Level 2 ½ Aging bridges replaced on time, buses every 16 years

Reduce Crashes & Vulnerability

Level 1 Continue today's programs: crashes drop 10%

Level 1 Low-lying major roads usable 8 weeks after a Cat. 3 storm

Minimize Traffic for Drivers & Shippers

Level 1 Intersections work 10% better

Level 1 Continue today's truck "quick fix" program

Real Choices when Not Driving

Level 2 Add 140 miles of trails & sidepaths by 2040

Level 1 Frequent bus service for 16% of people & jobs, somewhat frequent service (every ½-hour) for 45%

Not the preferred financial scenario of our MPO Board, as a result of public feedback.

Long-Range Forecasts of Future Performance

Financial Scenario 8a: New 1¢ Sales Tax outcomes in 2040

Adopted scenario for cost-feasible 2040 Plan

Preserve the System

Level 3 — Roads repaved every 17 years on average, meeting standards

Level 3 — Aging bridges and buses replaced on time

Reduce Crashes & Vulnerability

Level 2 ½ — Complete streets & intersection projects: crashes drop 21-50%

Level 2 — Low-lying major roads usable 6 weeks after a Cat. 3 storm

Minimize Traffic for Drivers & Shippers

Level 3 — Intersections work 17% better, and freeways 10% better

Level 3 — Two new RR overpasses remove 10-hour daily road closure

Real Choices when Not Driving

Level 3 — Add 240 miles of trails & sidepaths by 2040

Level 3 — Frequent bus service for 46% of people & jobs, somewhat frequent service (every ½-hour) for 64%

Public Engagement on Performance Outcomes

Select the amount to invest, over 20 years, in each program: Low, Med, or High?

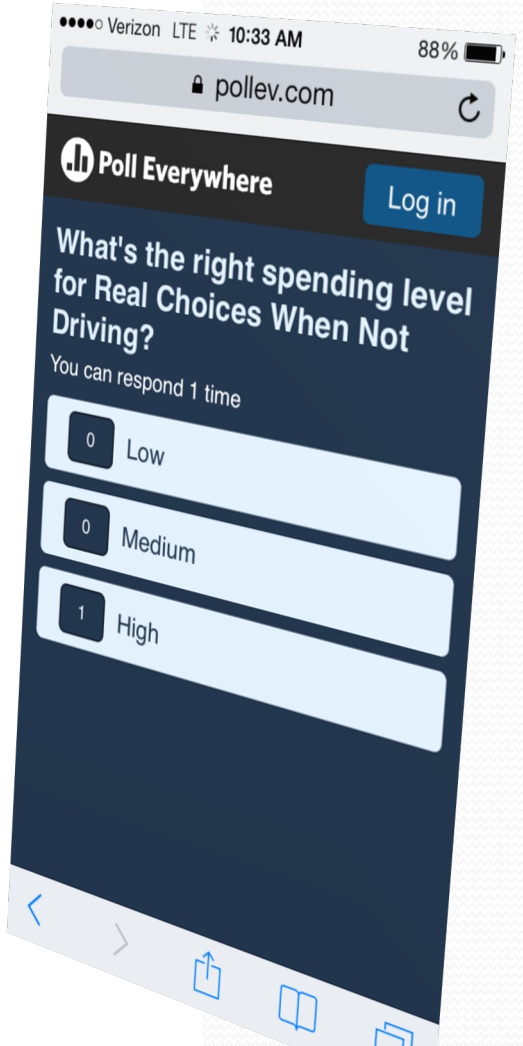
You have about $5,500 M to spend on four transportation programs:

Preserve the System

Reduce Crashes and Vulnerability

Manage Traffic for Drivers & Shippers

Real Choices When Not Driving



Save some money for **Major Projects**!

For simplicity, the cost estimates and budget are shown in millions of present-day dollars, for a 20-year period of spending. In each program, the low investment level is based on current spending in our county.

Investment Programs

Comment | See Instructions

Preserve the System | **Reduce Crashes and Vulnerability** | **Minimize Traffic for Drivers and Shippers** | **Real Choices When Not Driving**

Click on the amount to invest, over 20 years, in each program:
Low, Medium or High to **minimize traffic for drivers & shippers**.

Low $285

- Traffic signal upgrades reduce delay 7% on major roads
- Adjust curbs to move trucks through intersections better

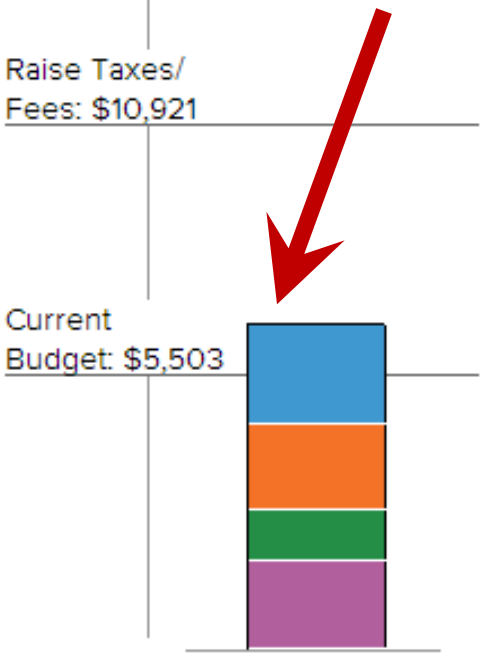
Medium $872

- Low level, plus more & better turn lanes at 640 intersections – reducing delay 17% on major roads
- Build 1 railroad overpass – remove 5 hours of stopped traffic each day

High $1,060

- Medium level, + 120 miles of freeways have smart tech & real-time traffic controls, reducing delay there 10%
- Build 2 railroad overpasses – remove 10 hours of stopped traffic each day

Your plan exceeds current budget.



Your plan exceeds current budget. Click for info on revenue options.

Next

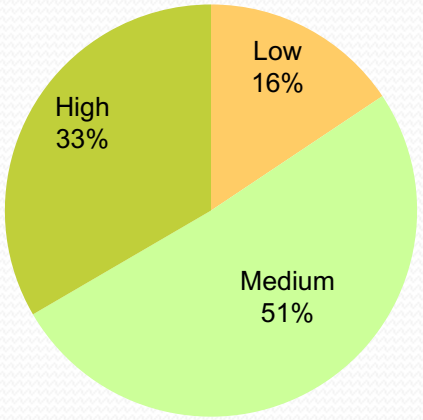
help

Share

Investment Programs: Low, Medium, High? Survey says…..

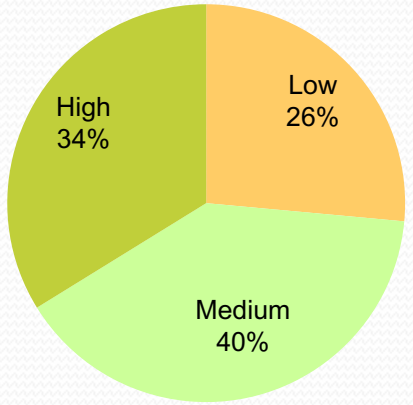
Preserve the System

1964 responses



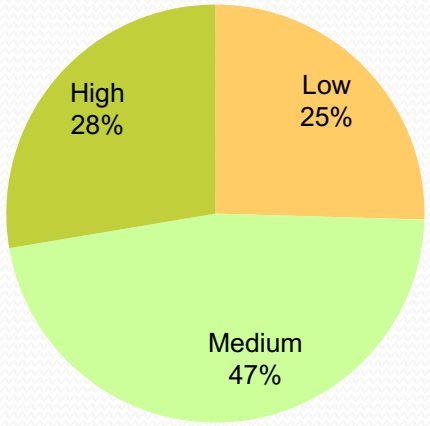
Min. Traffic for Drivers & Shippers

1920 responses



Reduce Crashes & Vulnerability

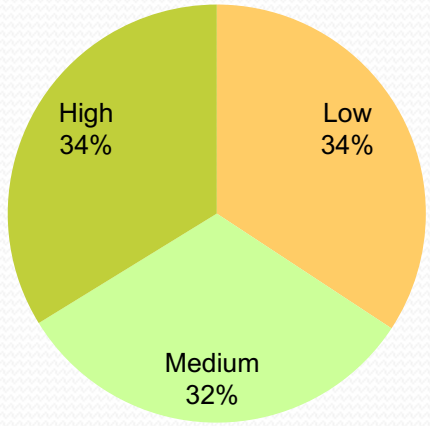
1921 responses



75% preferred to increase spending on safety

Real Choices When Not Driving

1886 responses



2040 MPO GOAL

50%

REDUCTION
IN CRASH FATALITIES

Equates to average annual crash reduction:

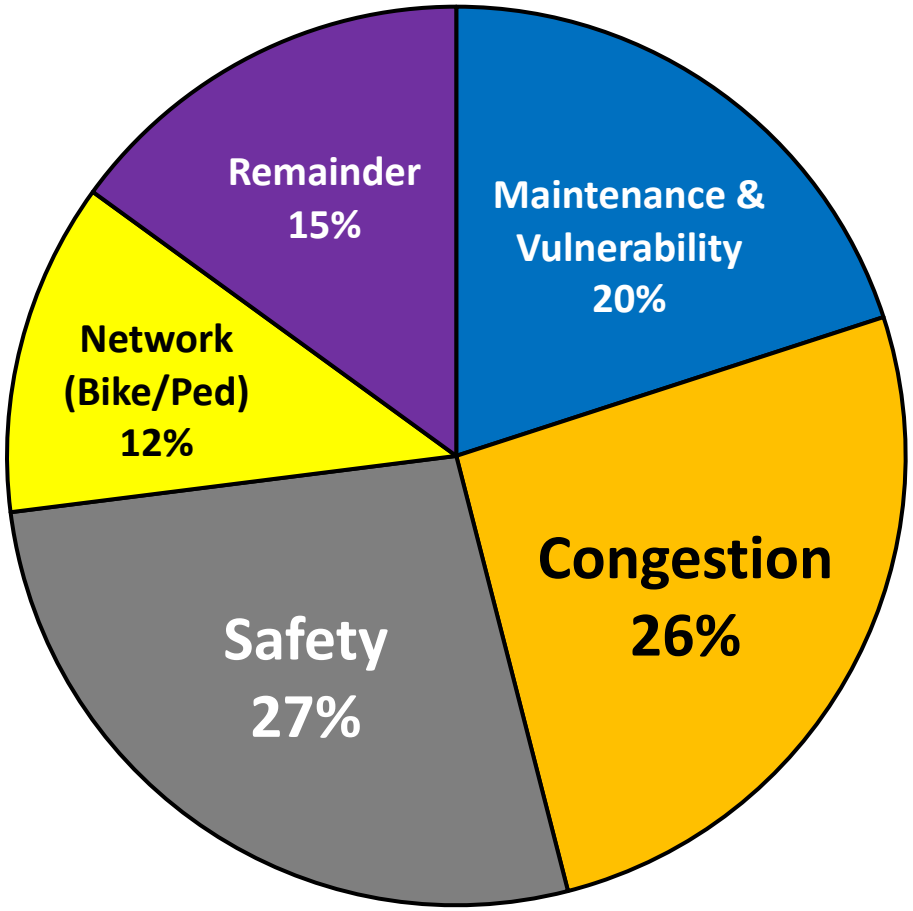
3.4% every year

Planning to Reach a 50% Reduction by 2040

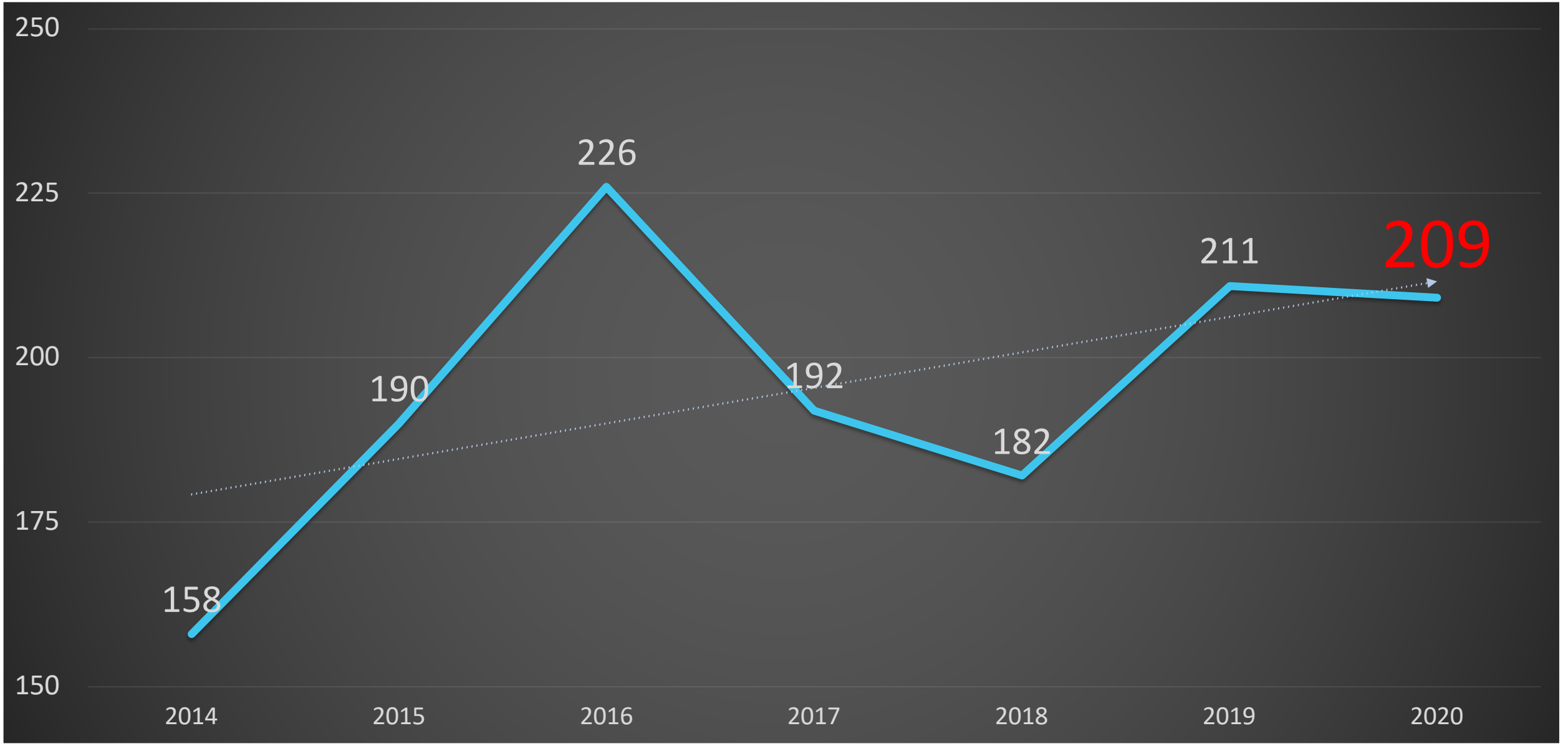
What Safety Improvements Could be Funded with Sales Tax Revenue?

- 450 miles of *Complete Streets* treatments, covering all priority corridors and some other high-crash corridors
- 600 miles of new standard streetlights, including operational costs for 20 years
- 300 sidewalk miles, for continuous coverage on *at least* one side of all major roads

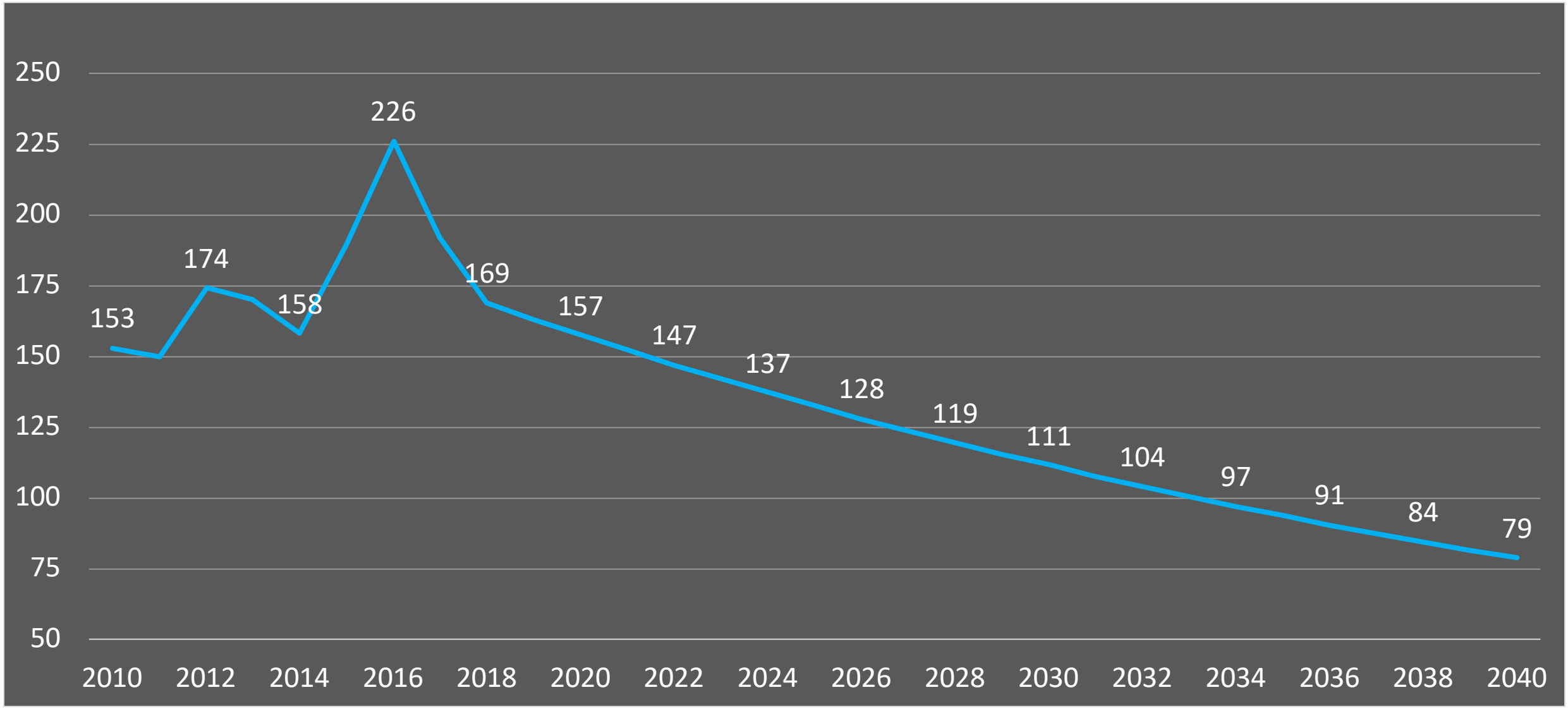
Allocation of Surtax Funds



Annual Fatalities - projected thru end of 2020



With a sustained 3.4% annual fatality reduction…



Next Step: The T.I.P.

Hillsborough MPO List of Priority Projects
2016/2017 Transportation Improvement Program
Table 2: CANDIDATES FOR NEW FUNDING

New projects in green

		Preserve the System			**Goals by 2040** **Resurface major roads every 14-17 years, local roads every 20-25 years** **Replace buses every 10-12 years** **Replace deficient bridges**		2040 Plan Annual Funding Est. ($m) Federal Metro Funds State Highways 49.6 TRIP Fuel Tax Rev - Local 14.0 Other Local Rev Transit Funds 6.4	
3	414963 2	Preserve System	MAINTAIN CURRENT BUS SERVICE	Bus Replacement	HART Priority #7	$16.4 million requested for FY21; $4 million recommended	SU	Added $4 million in FY20
		Reduce Crashes & Vulnerability			**Goals by 2040** **Reduce crashes 21-50%, to levels comparable to peer cities** **Protect low-lying major roads from flooding, cutting recovery time in half**		2040 Plan Annual Funding Est. ($m) Federal Metro Funds 3.3 State Highways 11.9 TRIP Fuel Tax Rev - Local 16.4 Other Local Rev 4.6 Transit Funds	
4	437243 1 437244 1 437247 1 437248 1	Reduce Crashes	SAFE ROUTES TO SCHOOL CANDIDATE PROJECTS, HILLSBOROUGH COUNTY	Sidewalks and Intersection Improvements	County Priority	1. Stowers Elem - $155,000 2. Summerfield Elem - $164,000 3. Eisenhower Middle - $227,000 5. Cypress Crk, Shields - $170,000 6. Nelson Elem - $83,000 7. Riverview Elem - $112,000	1-5 are Elig & Feas for TA; all were prioritized by TMA	
5	436639 1	Reduce Crashes	COLUMBUS DRIVE FROM NEBRASKA AVE TO 14TH STREET	Walk/Bike Safety	Tampa	$99,000 needed for design and $556,000 for construction	Elig & Feas for TA; prioritized by TMA	
6	437246 1	Reduce Crashes	46TH STREET FROM BUSCH BLVD TO FOWLER AVE	Walk/Bike Safety	Tampa	$77,000 needed for design and $442,000 for construction	Elig & Feas for TA; prioritized by TMA	

More info?

Beth Alden, AICP

AldenB@PlanCom.org

Hillsborough MPO

Metropolitan Planning for Transportation

Safety Target Setting in Louisiana

presented to

TPM Target Setting Miniseries: Safety Target Setting

presented by

Jessica DeVille, PE

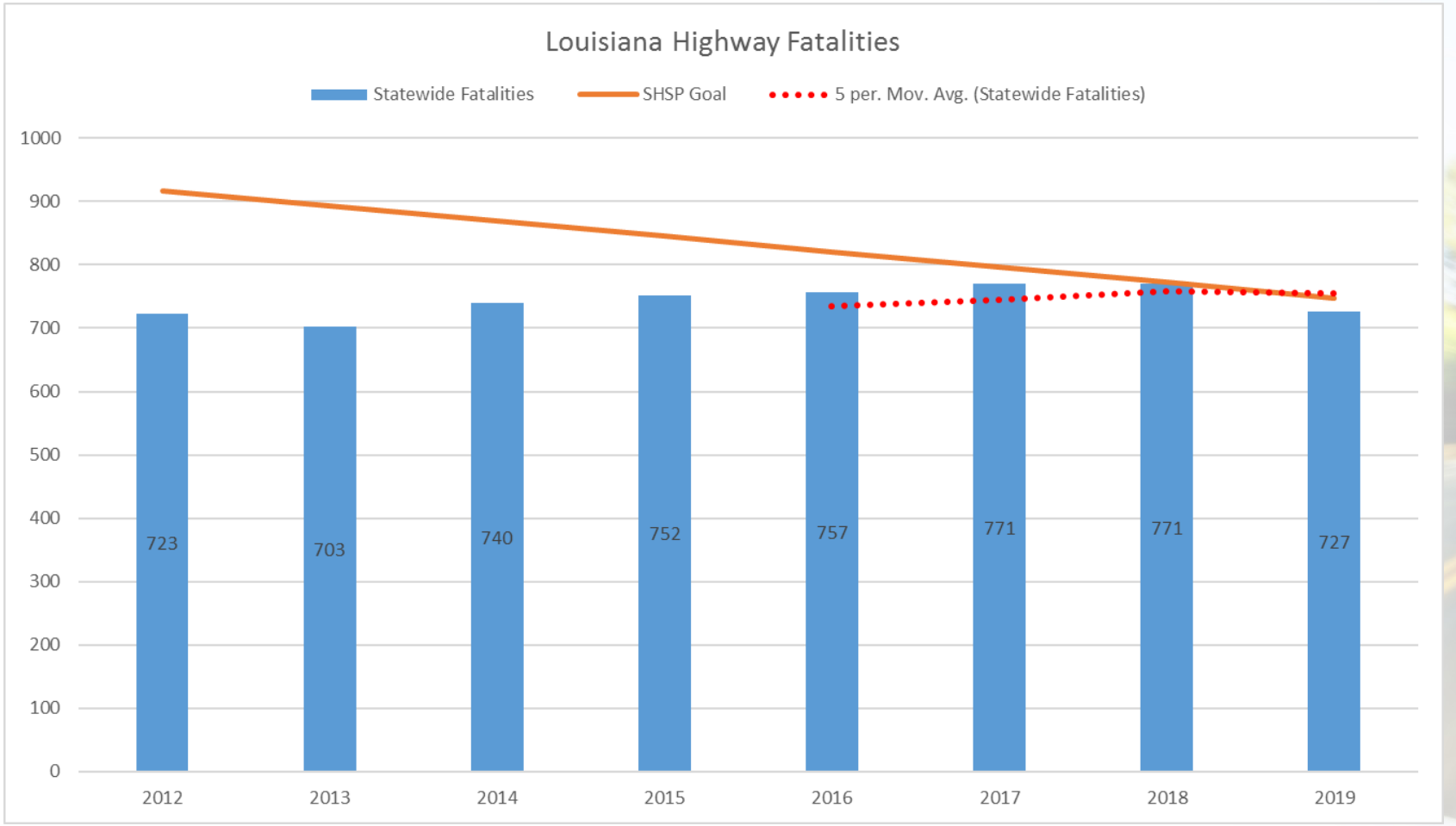
Louisiana DOTD

July 2020

Louisiana Safety Performance Measure Targets

- Performance Measures
  - **Fatalities**
  - **Fatality Rate**
  - **Serious Injuries**
  - Serious Injury Rate
  - Non-motorized fatalities and serious injuries
- KISS (keep it simple for safety) strategy:
  - 1% annual decrease for each measure per year
  - Using 5 year rolling average for baseline

Louisiana Safety Performance Measure Targets



Teamwork!

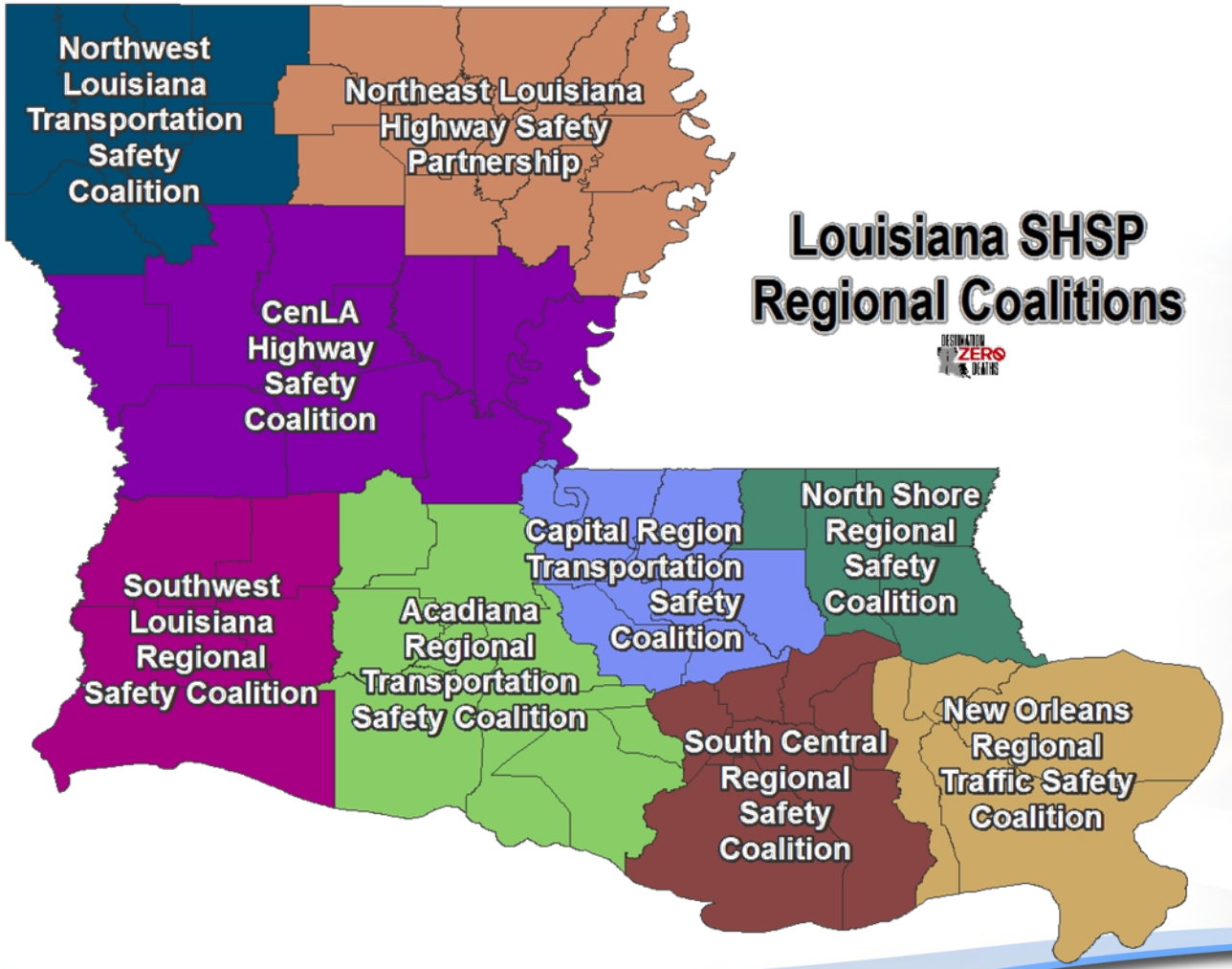
Regional Safety Coalitions
Organizations

Metropolitan Planning

The Louisiana Approach

SHSP Regional Coalitions

www.destinationzerodeaths.com



DESTINATION ZERO DEATHS

Initial Coordination Timeline

June 2016 - FHWA/NHTSA Target Setting Workshop

Louisiana Highway Safety Commission

LADOTD

MPOs

Regional Safety Coalitions

FHWA Division Office

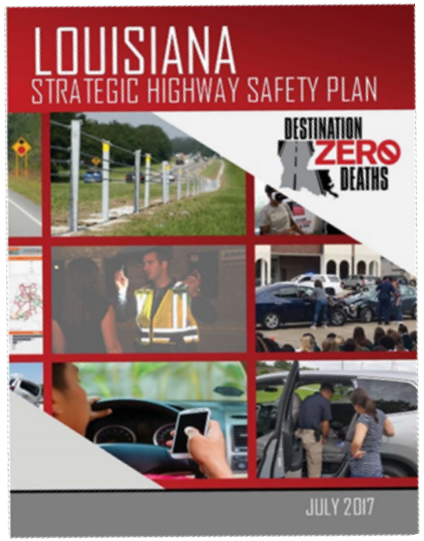
Cambridge Systematics

Oct. 2016 – SHSP Implementation Team/Update

SWOT analysis

Data review and analysis

Selection of emphasis areas



May 2017 – LHSC/ DOTD Coordination Meetings

Reviewed scenarios

Agreed on methodology

Coodinated targets for HSP and HSIP Annual Report

DESTINATION ZERO DEATHS

Ongoing Coordination Timeline

June
- Finalize Targets

Sept
- MPO Outreach

Oct-Feb
- Provide technical assistance/support

LOUISIANA STRATEGIC HIGHWAY SAFETY PLAN

STATEWIDE ACTION PLAN

YOUNG DRIVERS

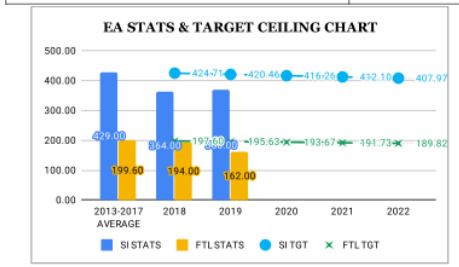
2020 TO 2021

Performance Action Compliance Tracking Plan Directory

ID	OBJECTIVES	STATE STRATEGIES
I.	Reduce the potential and recurrence of serious injuries and fatalities involving young drivers	COORDINATION / EDUCATION / ENFORCEMENT / OPERATION / OUTREACH

ID	OUTPUT MEASURES	DATA SOURCE	2019 DATA	2020 TARGET	2020 RESULT	PLAN ATTAINMENT
I. a.	1% minimum reduction of serious injuries involving young drivers	Center for Analytics & Research in Transportation Safety Reports	368.00	416.26		TARGET NOT MET
I. b.	1% minimum reduction of fatalities involving young drivers		162.00	193.67		TARGET NOT MET

	LEADERS/AGENCY		
*	Bridget Gardner	UMC	Bridget.Gardner@lcmchealth.org
*			



STATE DATA DASHBOARD:

CARTS SHSP YD DASHBOARD LINK

GOAL:

DESTINATION ZERO DEATHS

Regional Coordination

Louisiana SHSP Target Setting Dashboard

Safety Coalition

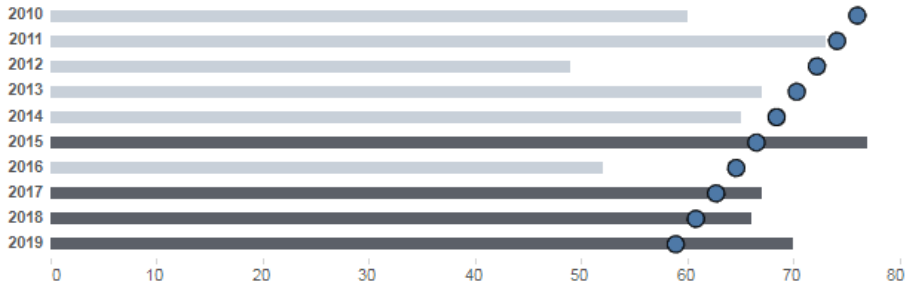
Northeast Louisiana Highway Safety Partnership

Injury Level

Fatal

Contributing Factor

(All)



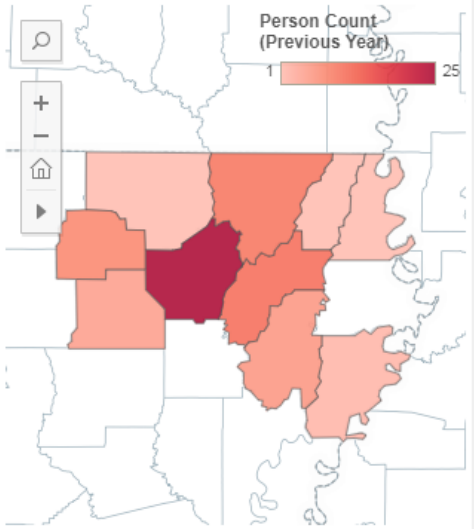
Bars show the count of Fatal injuries for each year. *Note: Fatality count for previous year may continue to increase for up to six months after year end due to the reporting process.*

Dots represent the SHSP goal for number of Fatal injuries each year.

Over the SHSP Goal
Under the SHSP Goal

Bar Color is based on count being above or below the SHSP Fatal Injury Target according to the legend located below the chart.

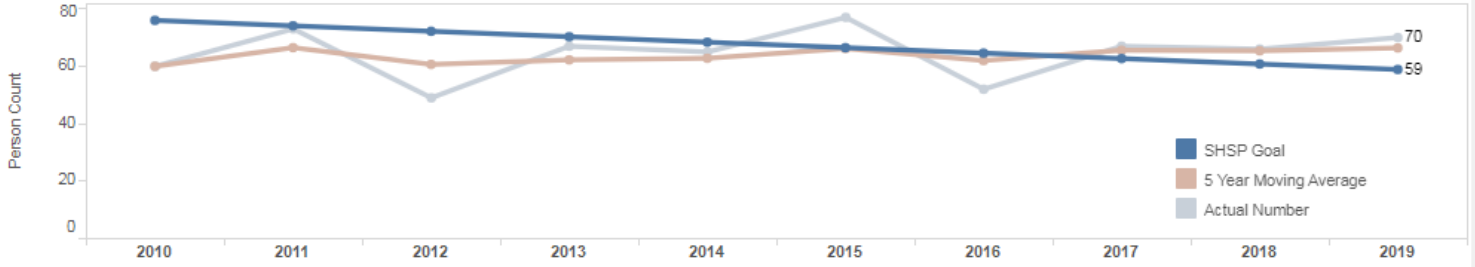
SHSP Data Definitions



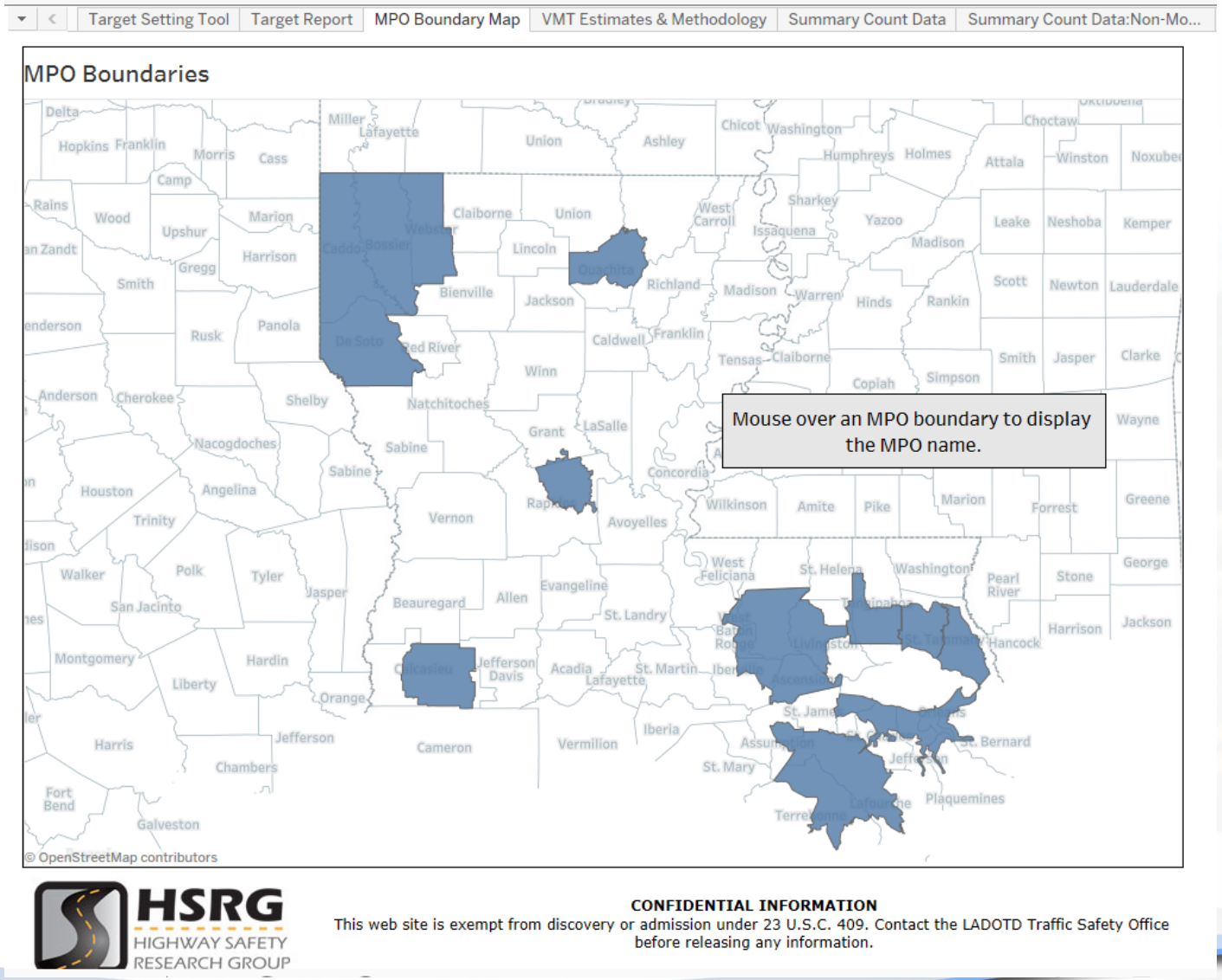
Map shows previous year's Fatal Injury count comparisons by Parish. Dark **red** indicates parishes with the greatest number. Mouse over each parish for more information.

Note: Parishes that are missing in the map above had no Fatal injuries for last year.

Annual Trends

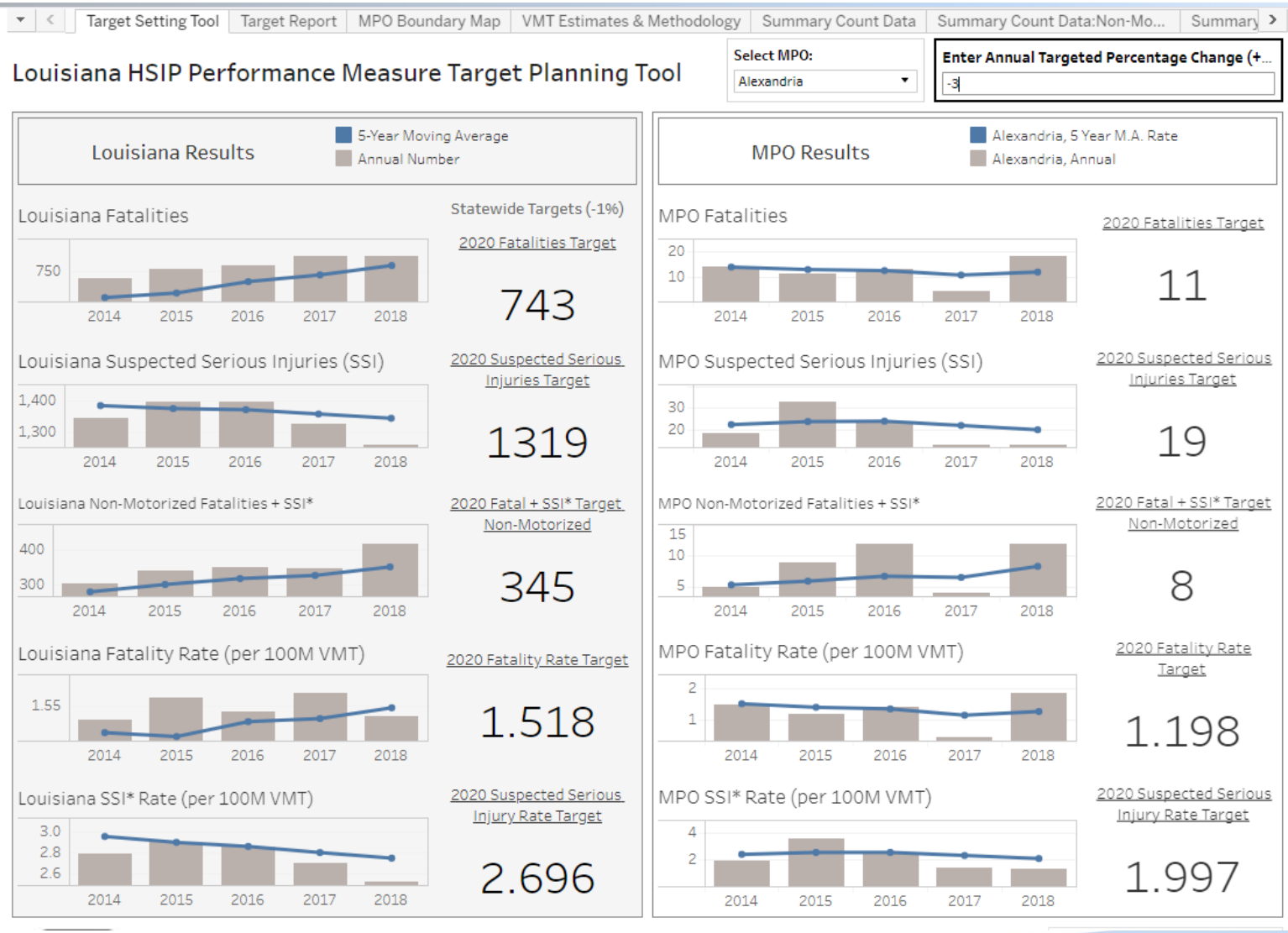


Dashboards



DESTINATION ZERO DEATHS

Safety Target Planning Tool



VMT Estimates & Calculation Methodology

MPO VMT Estimates (100 Million Vehicle Miles Traveled)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Alexandria	9.14	9.02	9.19	9.32	9.36	9.27	9.33	9.53	9.63
Baton Rouge	68.12	69.09	69.36	71.17	71.56	71.64	72.77	72.25	73.64
Houma	20.75	21.47	21.17	21.41	21.75	20.42	20.72	19.73	19.61
Lafayette	30.70	32.68	33.36	34.22	34.34	34.09	34.73	34.65	34.56
Lake Charles	16.32	16.69	16.76	17.81	18.04	18.32	19.36	19.67	20.47
Mandeville-Covington	12.33	12.81	12.75	13.02	13.22	12.51	12.62	12.73	13.31
Monroe	13.81	14.10	14.23	13.92	14.07	13.64	13.91	14.03	14.16
New Orleans	58.39	59.83	61.08	62.92	64.10	70.33	71.43	73.13	73.78
Shreveport	44.37	46.79	46.85	47.75	47.59	49.87	50.68	50.56	52.06
Slidell	11.46	11.90	11.85	12.10	12.29	11.62	11.73	11.83	12.37
South Tangipahoa	14.06	14.41	14.36	14.42	14.76	14.56	14.97	15.16	15.54

VMT calculation for each MPO is based on DOTD provided files for parish VMT for state and local roads, MPO boundary, and state roads with ADT (BM_STL_Controls). Using GIS the state road VMT for the MPO portion of the parish VMT is derived by clipping state roads in BM_STL_Controls by the MPO boundary and multiplying the length of the MPO state roads by the ADT. Continuing in GIS we calcula[illegible] dividing by total state road VMT for the parish. We use this percentage multiplied by the state and local roa[illegible] VMT. This process is repeated for each parish in the MPO and the results summed to yield an MPO VMT.

A document containing the FHWA Rule which includes definitions and calculation metho[illegible] accessed by clicking the link below:

FHWA Rule - National Performance Management Measures: Highway

HSRG HIGHWAY SAFETY RESEARCH GROUP

Target Setting Tool | Target Report | MPO Boundary Map | VMT Estimates & Methodology | Summary Count Data | Summary Count Data:Non-Mo...

Summary Fatality and Injury Count Data

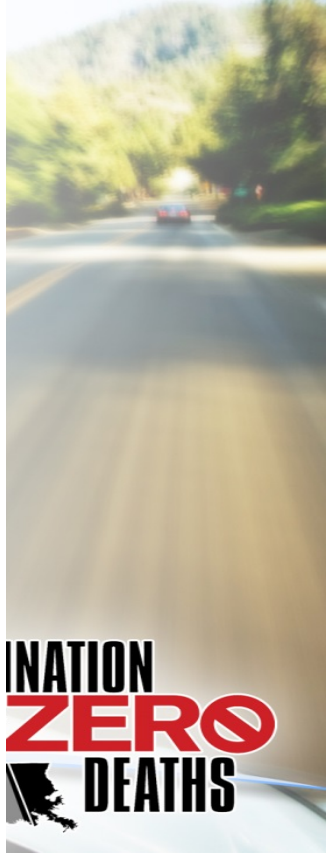
MPO Fatalities

	2010	2011	2012	2013	2014	2015	2016	2017	2018	MPO Total
Alexandria	16	15	13	12	14	11	13	4	18	116
Baton Rouge	79	88	106	102	105	88	105	132	132	937
Houma	49	29	36	48	50	39	44	50	25	370
Lafayette	52	50	44	62	61	61	48	43	40	461
Lake Charles	26	16	28	17	21	32	45	37	27	249
Mandeville-Coving..	9	12	6	6	6	10	7	13	16	85
Monroe	17	16	6	21	22	18	19	25	23	167
New Orleans	68	70	87	109	87	101	107	92	88	809
Shreveport	70	66	59	47	64	55	60	68	72	561
Slidell	7	15	19	11	8	13	12	18	11	114
South Tangipahoa	21	19	31	20	19	28	34	22	26	220

MPO Suspected Serious Injuries

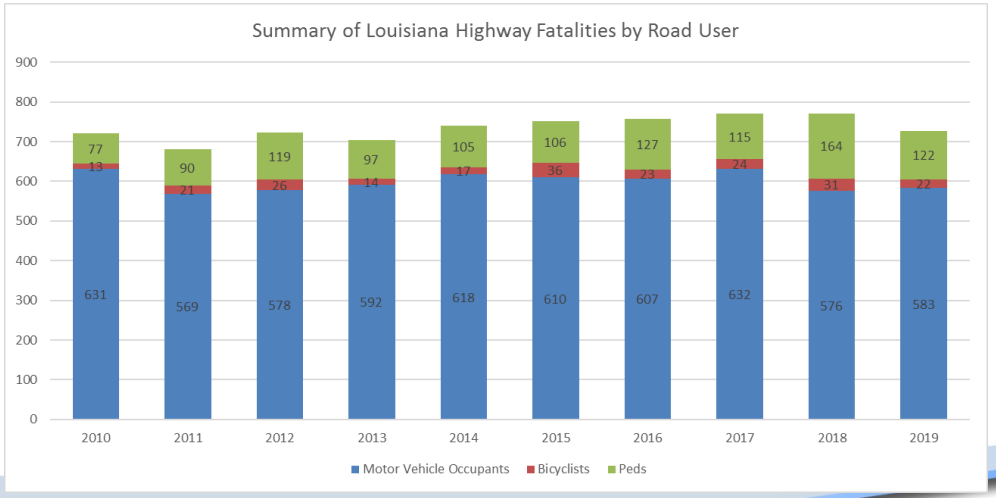
	2010	2011	2012	2013	2014	2015	2016	2017	2018	MPO Total
Alexandria	26	22	23	23	18	33	23	13	13	194
Baton Rouge	267	218	226	209	215	276	217	243	227	2,098
Houma	20	22	17	20	20	22	19	19	17	176
Lafayette	126	88	109	104	106	101	102	91	98	925
Lake Charles	43	50	47	52	49	58	55	53	70	477
Mandeville-Covington	16	7	15	14	13	13	23	21	20	142
Monroe	60	64	50	58	50	41	42	27	34	426
New Orleans	346	373	380	340	336	306	346	390	349	3,166
Shreveport	225	217	167	199	185	188	199	170	148	1,698
Slidell	16	20	29	13	24	24	22	24	11	183
South Tangipahoa	25	22	37	41	35	56	31	30	30	307

HSRG HIGHWAY SAFETY RESEARCH GROUP



Target Setting Coordination Challenges

- Multiple partners & stakeholders
- Communication
  - » Adopting New Injury Definitions in April 2019
  - » Translating the data
- Consistency in the process & the final numbers with 2 different deadlines (HSP & HSIP)



CALIFORNIA
Safety Performance Target Setting

TPM Target Setting Miniseries
Webinar 4: Safety Target Setting
July 29, 2020
Saurabh Jayant, Caltrans

California Target Setting

CALIFORNIA
Safety Performance Target Setting

Historical Target Setting Methodologies

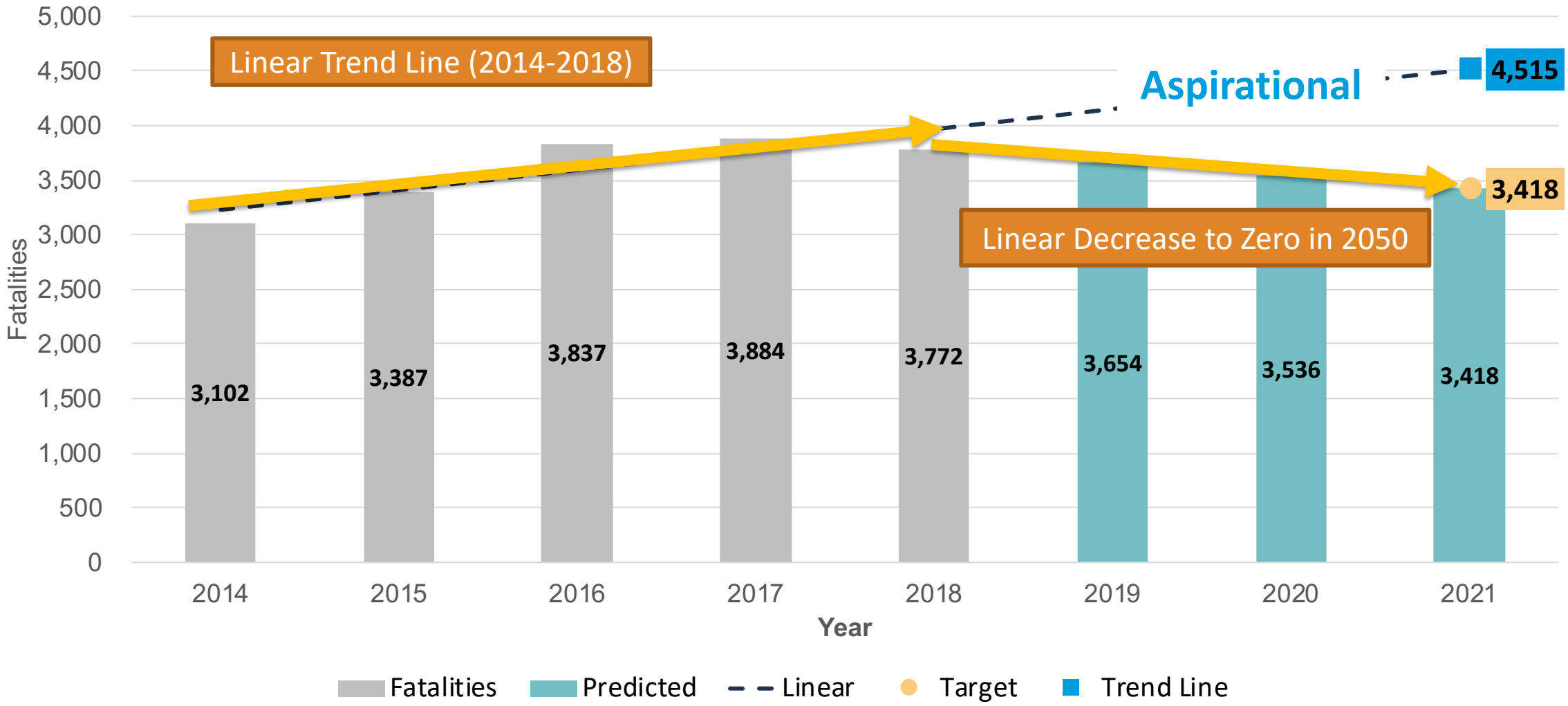
Aspirational

- Annual reduction to reach Zero Fatalities in 2050

Trend Based

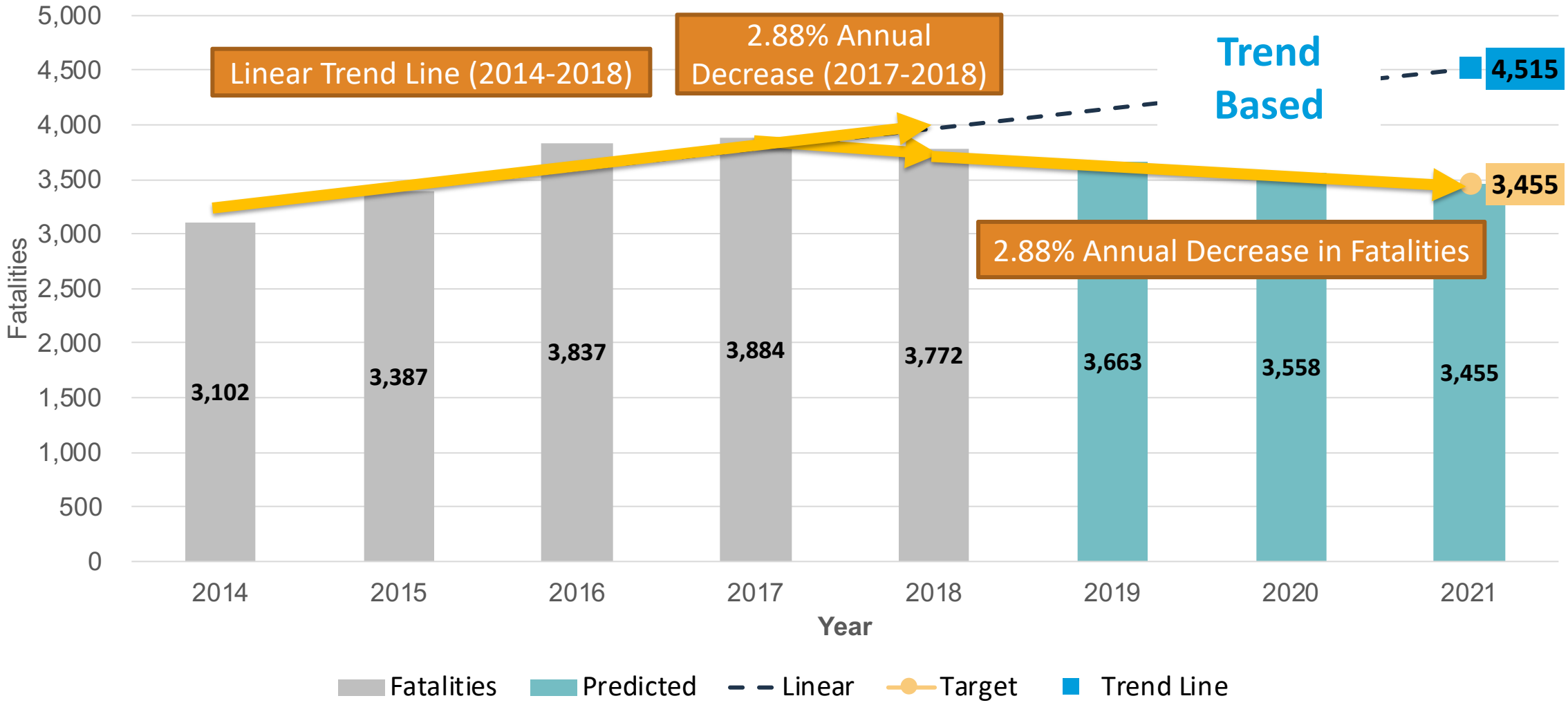
- Annual reduction based on recent actual reduction

Target Setting Methodology - Aspirational



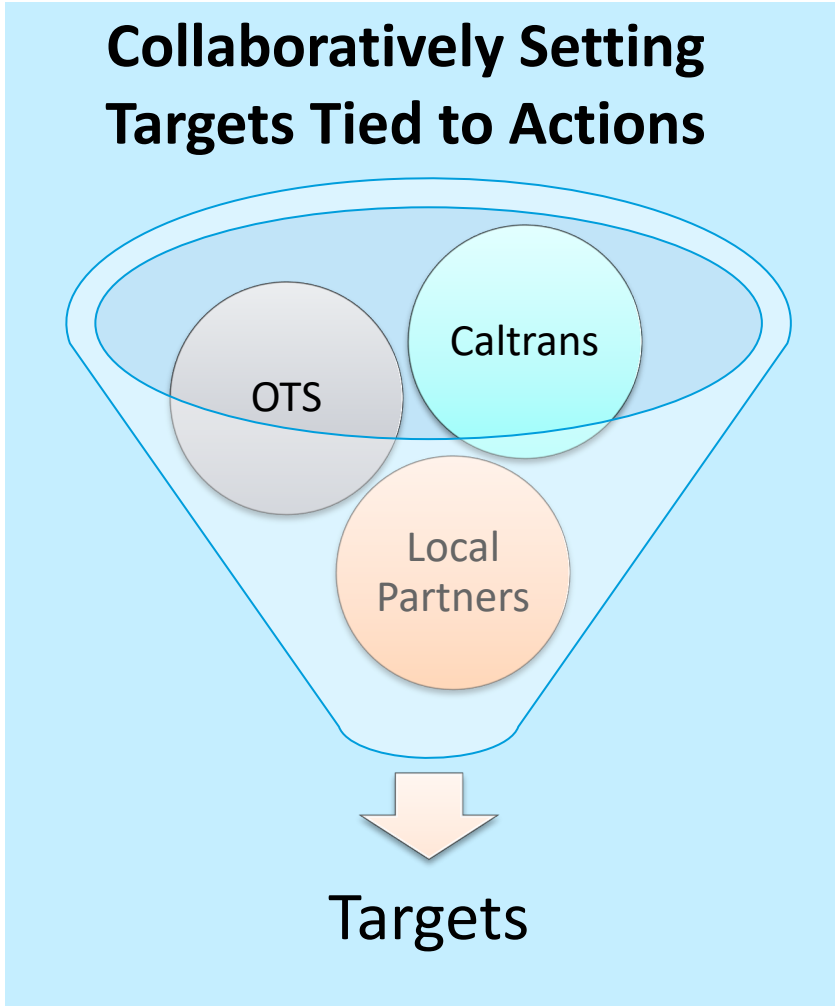
Target Setting Methodology - Trend Based

CALIFORNIA
Safety Performance Target Setting



Caltrans Rethinking Traffic Safety

Target Setting Moving Forward



Proposed Changes

- Collaborative approach
- Connection between activities and projects to the reduction of fatalities and serious injuries and thus targets

Target Setting Methodology

CALIFORNIA
Safety Performance Target Setting

HISTORICAL APPROACH

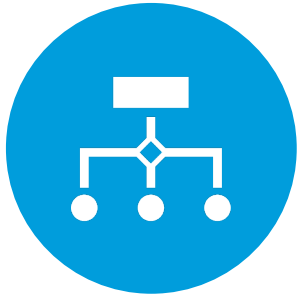
Aspirational

- Annual reduction to reach Zero Fatalities in 2050

Trend Based

- Annual reduction based on recent actual reduction

ENVISIONED APPROACH

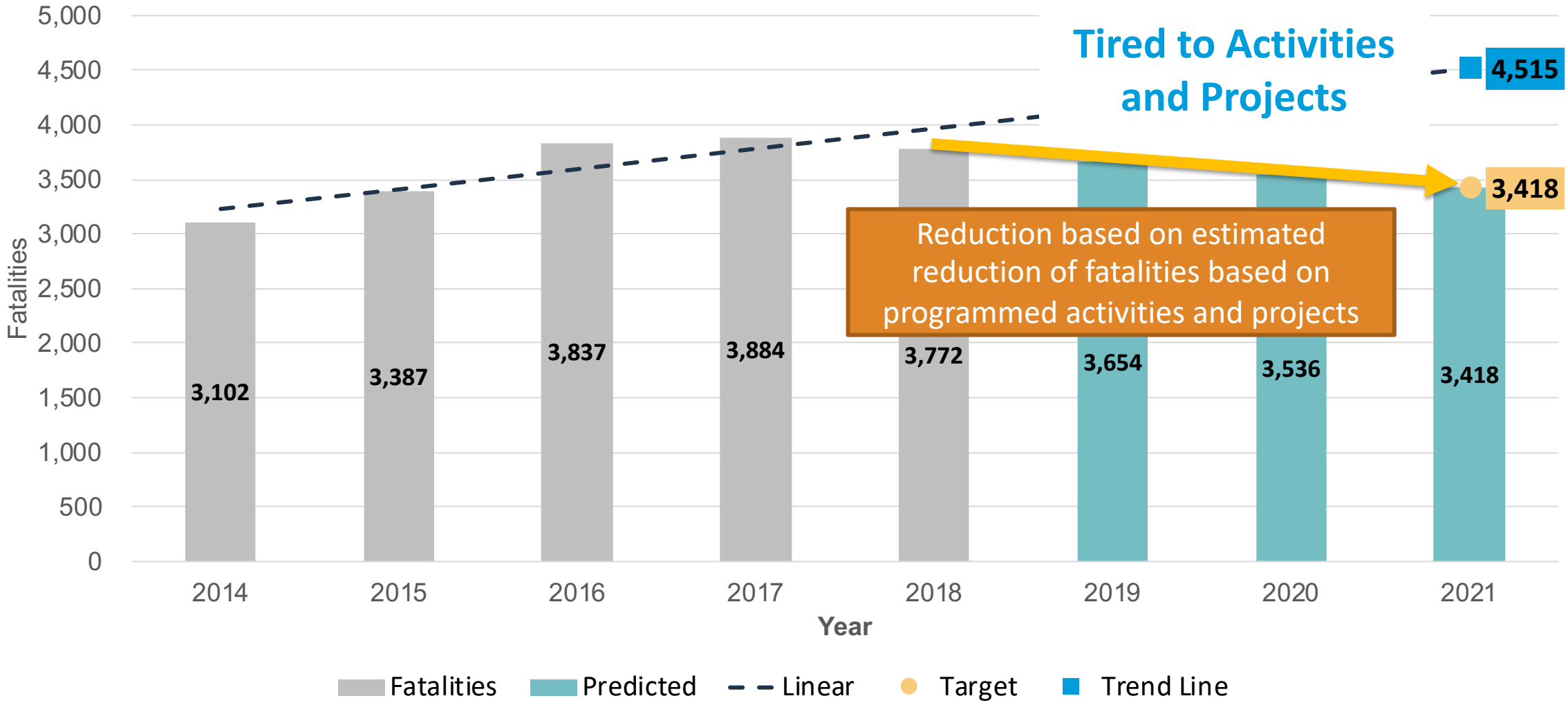


Tied to Activities and Projects

- Estimated reduction based on activities and projects

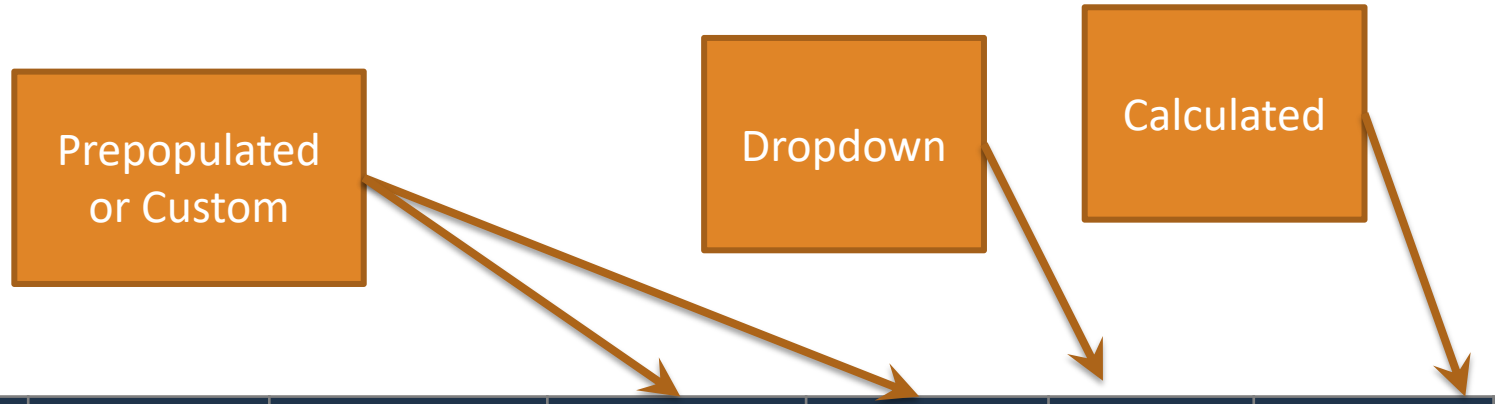
Target Setting Methodology - Tied to Activities and Projects

CALIFORNIA
Safety Performance Target Setting



Crash Reduction Estimator Tool

CALIFORNIA
Safety Performance Target Setting



Description	Type	Region	Fatality Type Associated	Fatalities Addressed	Estimated Reduction %	Year Implemented	Estimated Annual Reduction
Ped Improvements	Infrastructure	MTC	Pedestrian	89	10.0	2021	8.9

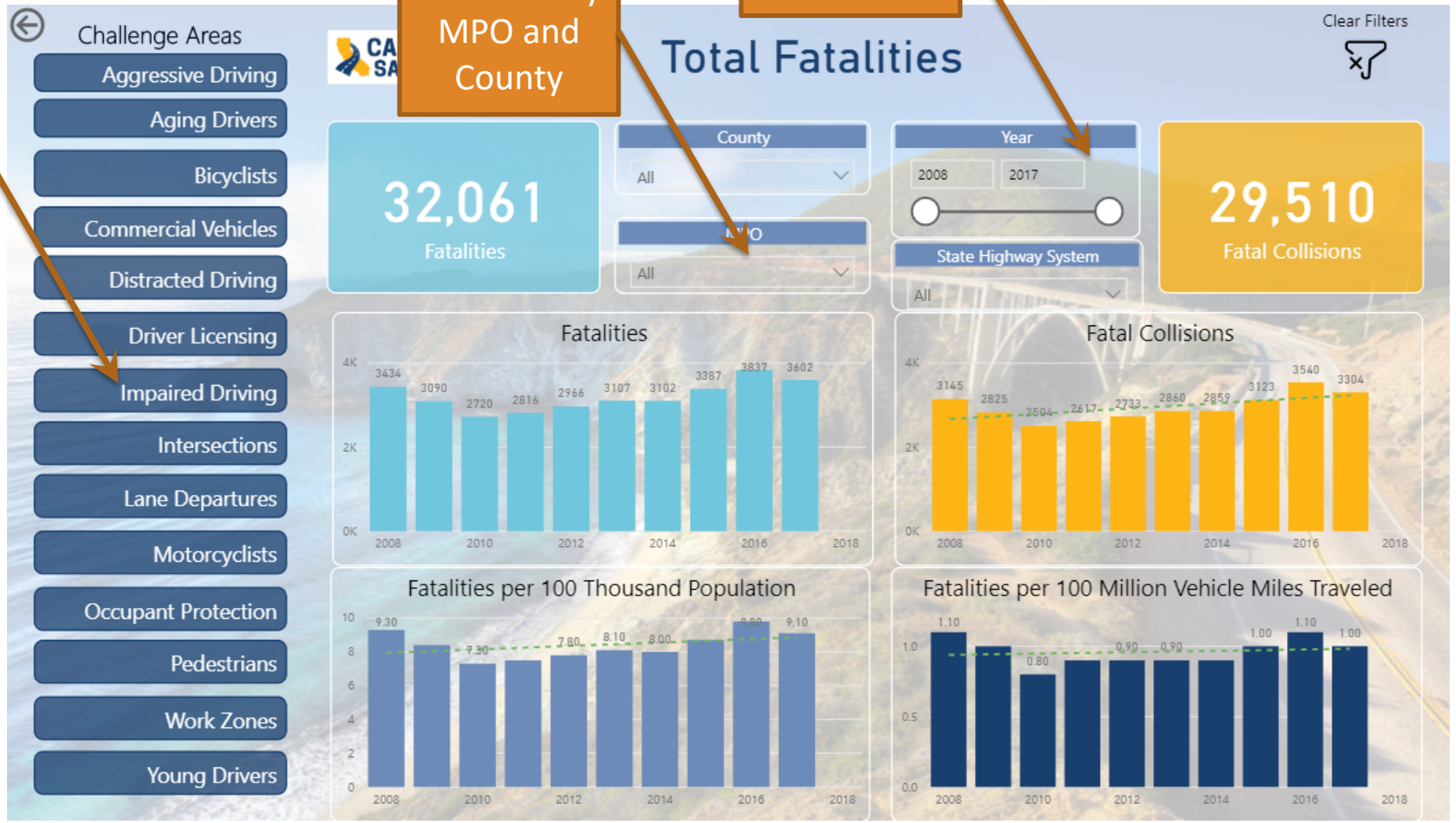
Traffic Safety Dashboard

CALIFORNIA
Safety Performance Target Setting

Can filter by Year(s)

Can filter by MPO and County

Can sort by SHSP Challenge Area



Additional screens

Thank you!

Saurabh Jayant, Caltrans SHSP Coordinator

Questions or requests for more information can be sent to PM1@dot.ca.gov

Questions?

Submit your questions using the Webinar's Q&A feature

Target Setting Miniseries Webinar 3: Highway Infrastructure Target Setting

- This webinar focuses on state target setting for federal PM2 infrastructure condition measures.
- Topics will include data considerations, collaboration and coordination with partner agencies, and aligning TPM projections and agency plan goals.
- When: August 5, 2020 2:00 EDT

TPM Target Setting
Five-Part Webinar Miniseries

Announcing a special five-part webinar miniseries addressing topics in transportation performance management (TPM). Each session will include an FHWA-led introduction followed by expert presentations and audience Q&A. Register today or learn more on the AASHTO TPM Portal at: https://www.tpm-portal.com/tpmmini

Episode 1
15 July 2PM EDT
TPM & Target Setting Overview
This webinar reviews state target setting approaches and lessons learned leading up to the mid-performance period progress report. Topics covered will include target setting in the face of uncertainty and data gaps, coordinating and collaborating on target setting and improving forecasting approaches.
Register https://register.gotowebinar.com/register/7982207434423457803

Episode 2
29 July 2PM EDT
Safety Target Setting
This webinar is a deep dive into state target setting approaches for federal requirements for safety performance measures. Topics will include a review of the safety report card results, and the impact of external factors and data lags on safety target setting.
Register https://attendee.gotowebinar.com/register/4648260580274723088

Episode 3
5 August 2PM EDT
Highway Infrastructure Target Setting
This webinar focuses on state target setting for federal PM2 infrastructure condition measures. The webinar will cover specific target setting issues related to pavements and bridges, including data considerations, collaboration and coordination with partner agencies and aligning TPM projections and agency plan goals.
Register https://attendee.gotowebinar.com/register/5482954832500877328

Episode 4
12 August 2PM EDT
Target Setting for System Performance Measures
This webinar covers transportation agency target setting for federal PM3 system performance and reliability, including policy, planning and performance considerations related to target setting. Presentations will address data gaps, modeling and forecasting for system performance targets, and moving the needle on the national system.
Register https://attendee.gotowebinar.com/register/7708635747887794191

Episode 5
26 August 2PM EDT
Traffic Congestion & Emissions Reductions Target Setting
This webinar focus on transportation agency target setting for federal PM3 CMAQ measures. Presentations will address decision analysis methods for setting targets, making CMAQ targets meaningful to the public, and target setting and related planning and programming challenges.
Register https://attendee.gotowebinar.com/register/5074559930680718860

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Target Setting Webinar Miniseries: https://www.tpm-portal.com/tpmmini/

Save the Dates!

TPM Target Setting Webinar Miniseries

Wednesday, August 5, 2020 – 2:00 PM EST
Highway Infrastructure Target Setting

Wednesday, August 12, 2020 – 2:30 PM EST
Target Setting for System Performance Measures

Wednesday, August 26, 2020 – 2:00 PM EST
Traffic Congestion and Emissions Reductions Target Setting

Federal Highway Administration | AASHTO THE VOICE OF TRANSPORTATION | TPM

For more information or to register:
https://www.tpm-portal.com/tpm-webinars/